CONSTRUCTION NEWS

PERSONALS, ENGINEERING SOCIETIES, INDUSTRIAL NOTES, TRADE PUBLICATIONS.

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PERSONAL.

Messer & Logeman, civil engineers and contractors, have opened new offices in Hillsboro, Ill.

Mr. W. L. Stevenson, General Manager of the Union Terminal Ry., of Sioux City, Ia., has resigned.

Mr. Chester H. Beatty, of Colorado, has been appointed Assistant General Manager of the Guggenheim Exploration Co.

Mr. Dudley Tarrand, of Newark, N. J., has been appointed Receiver of the Murphy Safety Third-Rail Electric Co.

Mr. Edwin Main, City Engineer of Rockford, Ill., will resign that position to accept one with the Monmouth Mining & Mfg. Co.

Mr. John A. Abbott has resigned as Vice-President and General Manager of the Consolidated Ry. Lighting & Refrigerating Co., of New York.

Mr. Merrill Van G. Smith has been appointed Associate Professor of Mechanical Engineering at the Clarkson School of Technology, Potsdam, N. Y.

Mr. F. Breakey Freeman, Superintendent of Construction for the Catawba Power Co. on the Indian Hook Shoals dam, Rock Hill, S. C., has resigned his position.

Major Thomas L. Casey, Corps of Engineers, U. S. A., is assigned as Engineer of the 15th Lighthouse District, succeeding Col. Amos Stickney, Corps of Engineers.

Mr. Frank L. Getman, C. E., Assistant City Engineer of Hudson, N. Y., has resigned to accept a similar position at Cohoes, N. Y., succeeding Mr. Wm. Breene, resigned.

Mr. Maximilian Toch will deliver an illustrated lecture on March 6 before the American Chemical Society, New York Section, on the "Permanent Protection of Steel and Iron."

Mr. W. H. Gridley has been appointed General Manager of the Chicago, Peoria & St. Louis Ry., with headquarters at Springfield, Ill., succeeding Mr. Curtiss Millard, resigned.

Mr. C. H. Wilmerding, of Chicago, has been appointed Consulting Engineer in connection with the new shops to be built by the Chicago, Rock Island & Pacific Ry. at East Moline, Ill.

Mr. J. V. McKean has been appointed to succeed Mr. Geo. C. McFarlane as Engineer of the Hecla Belt Line Ry., with headquarters at Detroit, Mich., Mr. McFarlane being transferred.

Mr. Ralph E. Mayer, C. E., and Mr. Ira H. Woolson, M. E., of the Department of Mathematical Engineering of Columbia University, New York city, have been appointed Adjunct Professors.

Mr. I. F. Stern has been appointed General Bridge Inspector of the Chicago & Northwestern R. R., succeeding Mr. W. H. Lawrence. Mr. H. M. Trippe has been made Assistant Bridge Inspector.

Mr. John Lorenz, Superintendent of the electric light, gas and water plants at Hamilton, O., has resigned and will accept a position in charge of an electric light and gas plant at Jackson, Miss.

Mr. J. D. Hurley and Mr. A. B. Holmes, formerly connected with the Standard Pneumatic Tool Co., are now associated with the Rand Drill Co., New York, in the "Imperial" Pneumatic Tool Department.

Mr. W. R. Martin, Division Superintendent of the Galveston, Harrisburg & San Antonio Ry., has been appointed General Manager of the El Paso & Northeastern R. R., with headquarters at Alamogordo, N. Mex.

Mr. S. M. Dix, Vice-President of R. M. Cherrie & Co., iron merchants, of Chicago, has been elected President of that company, succeeding the late Mr. Cherrie. The company's offices are in the Western Union Building.

Mr. H. J. Cambie has been appointed Special Assistant Engineer of the Canadian Pacific Ry. Co., with headquarters at Vancouver, B. C., and Mr. F. F. Busteed is appointed Engineer of the Pacific Division, succeeding Mr. Cambie.

Mr. Henry R. Buck, Assistant City Engineer of Norwich, Conn., has been appointed by Mr. Frederick L. Ford, City Engineer of Hartford and President of the Connecticut Society of Civil Engineers, Assistant Secretary of that society.

Mr. E. E. Darling, M. Am. Soc. M. E., Chief Engineer of the Edison Portland Cement Co., was seriously injured in an explosion of pulverized coal at the company's plant at New Village, N. J., on March 2. Mr. Darling was formerly superintendent of buildings and grounds at Columbia University, New York city.

Mr. E. H. Arnold, Principal Assistant Engineer of the Aurora, Elgin & Chicago Electric Ry., at Wheaton, Ill., has been appointed Chief Engineer of the Quincy & Western Illinois Electric Ry., with headquarters at Quincy, Ill. The latter road is now under construction and will be a long-distance interurban line.

Mr. A. D. Akin, Resident Engineer of the Tennessee Central R. R. at Hopkinsville, Ky., has been transfered to charge of the masonry and concrete work on the Fifth Division of that road, with headquarters at Clarksville, Tenn. Mr. W. H. Taylor, formerly with the Pennsylvania Central Ry., succeeds him at Hopkinsville.

Messrs. Dunbar & Sullivan, Buffalo, N. Y., organized in 1844, have incorporated under the firm name of Dunbar & Sullivan Dredging Co., and will conduct their business in future under the same management. Mr. H. T. Dunbar is President; Mr. F. E. Dunbar Vice-President; Mr. O. E. Dunbar, Treasurer, and Mr. F. C. Slee, Secretary.

Mr. Alexander H. Rudd has been appointed Assistant Signal Engineer of the Pennsylvania R. R., with office at Philadelphia, Pa. Mr. Rudd has for the last four years been Signal Engineer of the Delaware, Lackawanna & Western Ry., and prior to that was Signal Engineer of the Hartford Division of the New York, New Haven & Hartford Ry.

Mr. Charles S. Powell, associated with the Westinghouse electric interests since 1893, and for the past six years Manager of the Cleveland office of the Westinghouse Electric & Mfg. Co., has been appointed Assistant Manager of the British Westinghouse Electric & Mfg. Co., Ltd., with headquarters in the Westinghouse Building, Norfolk St., Strand, London, W. C.

Mr. Frederic A. Molitor, M. Am. Soc. C. E., has resigned as Chief Engineer of the Choctaw, Oklahoma & Gulf R. R. Mr. Molitor is a Cornell University graduate and the following are among the important positions which he has held: 1889-90, Assistant Engineer and Principal Assistant Engineer of the Kentucky Central R. R.; 1890-91, Engineer Maintenance of Way Cincinnati Division of the Chesapeake & Ohio Ry.; 1891-94, Engineer Philadelphia Belt Line Road in charge of improvements at Philadelphia, Pa.; 1894-95, Engineer in Charge of the construction of the Montauk extension Long Island R. R.

OBITUARY.

Mr. E. T. Ivins, for the past ten years in the employ of the Thomson Meter Co., of Brooklyn, N. Y., died suddenly at Trenton, N. J., on Feb. 17.

Col. Alfred Landon Rives, Civil Engineer, died at his home at Castle Hill, Va., on Feb. 27, aged 71 years. He was for several years General Manager of the Panama Canal Co.

Mr. A. L. Murphy, General Manager and a director of the Longhead Iron & Tube Works, of Conshohoken, Pa., died recently of apoplexy. He was President of the National Tube Makers' Association and patentee of a tube-welding machine.

Mr. Frank Treman Wyckoff, President of the Wyckoff Pipe & Creosoting Co., Portsmouth, Va., died at his home in Stamford, Conn., on Feb. 19, of Bright's disease. Mr. Wyckoff was the first to manufacture creosoted conduit for carrying underground wire. He was a son of Wesley Wyckoff, of Elmira, N. Y., a well-known manufacturer.

Mr. James Glaisher, F. R. S., for 34 years Superintendent of the Magnetic and Meteorological Department of the Greenwich Observatory, England, died recently at the age of 94 years. He had been Superintendent of the department since its inception in 1840, and during his connection with it took active part in aerial experiments. He was elected a Fellow of the Royal Society in 1849, was President in 1867-68, and for nearly 20 years was one of its secretaries.

Dr. R. J. Gatling, the inventor of the rapid-fire gun and of the recently-completed auto-plow of that name, died in New York city on Feb. 27. Dr. Gatling was 84 years of age, but up to the time of his death was engaged in perfecting a few business formalities prior to placing his new motor plow on the market. He was born in the state of New Jersey and received a degree from the Ohio Medical College in 1850, but never practiced medicine. He invented a number of mechanical contrivances, but the invention which brought him most prominence was that of the Gatling gun, of which he first conceived the idea in 1861.

Mrs. Roebling, wife of Col. Washington A. Roebling, Engineer of the Brooklyn Bridge, New York city, died at her home in Trenton, N. J., on Feb. 28, after an illness of two months. Mrs. Roebling first came into prominence through the part she took in directing the details of construction of the Brooklyn Bridge while her husband lay stricken with caisson fever. Col. Roebling contracted caisson fever while superintending the sinking of the foundations for the bridge, and in 1872 became an invalid. From his sickroom, with the aid of field-glasses, he directed the construction work on the bridge, and Mrs. Roebling assisted her husband by carrying out his plans and directions. Mrs. Roebling was identified with several well-known women's social and patriotic societies, and was a member of the Board of Managers of the Louisiana Purchase Exposition. Mr. John Augustus Roebling, Jr., of Asheville, N. C., the only son of Col. and Mrs. Roebling, survives her.

ENGINEERING SOCIETIES.

COMING MEETINGS.

AMERICAN RAILWAY ENGINEERING AND MAINTENANCE-OF-WAY ASSOCIATION.
March 17, 18. Annual meeting at the Auditorium Hotel, Chicago. Secy., L. C. Fritch, 1562 Monadnock Block, Chicago.

AMERICAN ELECTROCHEMICAL SOCIETY.
April 16, 17, 18. Annual meeting at New York, N. Y. Secy., C. J. Reed, Philadelphia.

AMERICAN SOCIETY OF CIVIL ENGINEERS.
June 8. Annual convention at Asheville, N. C. Secy., C. W. Hunt, 220 W. 57th St., New York.

AMERICAN FOUNDRYMEN'S ASSOCIATION.
June 9, 10, 11. Annual convention at Milwaukee, Wis. Secy., Richard Moldenke, P. O. Box 432, New York city.

INTERNATIONAL ASSOCIATION OF CAR ACCOUNTANTS AND CAR SERVICE OFFICERS.
June 17, 18. Annual meeting at Quebec, Canada. Secy., L. G. Corcoran, Buffalo, N. Y.

AMERICAN WATER-WORKS ASSOCIATION.
June 23-26. Annual meeting at Detroit, Mich. Secy., J. M. Diven, Elmira, N. Y.

AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS.
June 22 to 26. Annual convention at Niagara Falls, N. Y. Secy., R. W. Pope, 95 Liberty St., New York.

RAILWAY SIGNALING CLUB.—The next regular meeting of this club will be held at Hotel Manhattan, New York city, on March 10. The principal business of the meeting will be an informal discussion, to be opened by Mr. H. M. Sperry, on the problems which confront the signal engineer in connection with providing adequate block signals for fast trains.

NEW ENGLAND WATER-WORKS ASSOCIATION.—The next meeting of the Association will be held at the Hotel Brunswick, Boston, Mass., on March 11, and the following papers will be read and discussed: "Underground Water; Suggestions on How to Obtain and Care for it," George Bowers, City Engineer, Lowell, Mass.; "A Little Talk about Water Rates," by John C. Chase, Chief Engineer Water-Works Co., Derry, N. H.; "Fuel; What we Don't Know about it," Edward Atkinson, President Boston Manufacturers' Mutual Fire Insurance Co., Boston, Mass.

SOCIETY OF MUNICIPAL ENGINEERS OF THE CITY OF NEW YORK.—A meeting to organize a society of engineers in the employ of the city of New York was held at the rooms of the American Society of Mechanical Engineers on Feb. 25. The meeting was called by a representative committee of 42 members, with Mr. O. F. Nichols, Engineer-in-Charge of the Williamsburgh Bridge, as Chairman, and Mr. Arthur S. Tuttle, Assistant Engineer, Board of Estimate and Apportionment, as Secretary. The call stated that there are now about 800 engineers employed on "a vast amount of engineering work" within Greater New York, and that the work is so diversified and distributed that "the men engaged on it rarely have an opportunity to meet, and are acquainted with but few details of the work other than their own." The proposed organization would assist in systematizing and standardizing records,

encourage a study of office practice, and, by bringing the engineers of the city together, it would doubtless secure a more complete c operation in the execution of the work done for the city. The association might also work in conjunction with other bodies in investigating the various problems in municipal engineering; it might well establish a library of publications pertaining to municipal engineering, collate statistics as to the cost and permanence of engineering works, and keep on file plans and specifications of all municipal construction, as well as the reports of the various technical societies.

The discussion at the meeting on Feb. 25 showed a determination to form an organization of technical merit. A committee of five was appointed to report more definite plans of organization at a meeting to be held on March 25.

CONSTRUCTION NEWS.

CONDENSED LIST OF CONTRACTS PENDING WITH DATE OF OPENING BIDS

Bids to be opened.	Work.	Place.	See Eng. News.
Mar. 5.	Laying water mains, Kansas City, Mo. Advertised, Eng. News, Feb. 19 and 26.		Feb. 19
Mar. 5.	Water pipe, Yonkers, N. Y. Advertised, Engineering News, Feb. 19.		Feb. 19
Mar. 5.	Paving, Cleveland, O.		Feb. 19
Mar. 5.	Hospital, Springfield, O.		Feb. 19
Mar. 5.	Fog signal station, San Francisco, Cal.		Feb. 19
Mar. 5.	Electric wire system, Janesville, Wis. Advertised, Eng. News, Jan. 22 and 29.		Jan. 22
Mar. 5.	Pier, etc., Buffalo, N. Y. Advertised, Eng. News, Feb. 12 to March 12.		Feb. 12
Mar. 5.	Sewer, materials, Meriden, Conn.		Feb. 12
Mar. 5.	Sewer, Meriden, Conn.		Feb. 26
Mar. 6.	Pumping engine, Allentown, Pa. Advertised, Eng. News, Feb. 26 and Mar. 5.		Feb. 26
Mar. 6.	Bridge, Delaware, O.		Feb. 26
Mar. 6.	Bridge, Milwaukee, Wis.		Feb. 12
Mar. 6.	Electric light plant, Vancouver, Wash.		Feb. 19
Mar. 6.	Pump, Allentown, Pa. Advertised, Engineering News, Feb. 19.		Feb. 19
Mar. 6.	Street improvement, New Orleans, La.		Feb. 19
Mar. 6.	Machinery, New York, N. Y.		Mar. 5
Mar. 7.	Water pipe, etc., Boston, Mass.		Mar. 5
Mar. 7.	Sluice gates, etc., St. Paul, Minn. Advertised, Eng. News, Feb. 12 to March 12.		Feb. 12
Mar. 7.	Portland cement, Marietta, O.		Feb. 12
Mar. 7.	Bridge, Charleston, Mo.		Feb. 26
Mar. 7.	Track superstructure, Cleveland, O.		Feb. 26
Mar. 7.	Sewer, Youngtown, O.		Feb. 26
Mar. 9.	School, Cleveland, O.		Feb. 26
Mar. 9.	Glass and fixtures, New York, N. Y.		Feb. 26
Mar. 9.	Sewers and paving, Continental, O.		Feb. 26
Mar. 9.	Sewer, Kokomo, Ind.		Feb. 26
Mar. 9.	Sewer, Toledo, O.		Feb. 26
Mar. 9.	Paving, Columbus, O.		Feb. 26
Mar. 9.	Pier, Duluth, Minn. Advertised, Eng. News, Feb. 12 to March 12.		Feb. 12
Mar. 9.	Conduit and el. wiring, Jamestown, N.Y. Advertised, Engineering News, Feb. 5.		Feb. 5
Mar. 9.	Drawbridge, Colville, Wash.		Feb. 19
Mar. 9.	Dredging, Wilmington, Del.		Feb. 19
Mar. 9.	Dredging, Duluth, Minn.		Feb. 19
Mar. 9.	Wharf, etc., Port Townsend, Wash.		Mar. 5
Mar. 9.	Pipe, etc., Great Falls, Mont.		Mar. 5
Mar. 9.	Bridges, Fredericton, N. B.		Mar. 5
Mar. 9.	Sewer, St. Paul, Minn.		Mar. 5
Mar. 9.	Bridges (2), Ruby, Tex.		Mar. 5
Mar. 10.	Paving, St. Louis, Mo.		Mar. 5
Mar. 10.	Sewer, New York, N. Y.		Mar. 5
Mar. 10.	Roads, Cheshire, Conn.		Mar. 5
Mar. 10.	Gas plant, Canon City, Colo.		Mar. 5
Mar. 10.	Street lighting, Muscatine, Ia.		Feb. 19
Mar. 10.	Boiler (W.-W.), Fort Mott, N. J.		Feb. 19
Mar. 10.	Electrical apparatus, Austro-Hungary		Feb. 5
Mar. 10.	Buildings, Des Moines, Ia.		Feb. 12
Mar. 10.	Training walls, St. Augustine, Fla. Advertised, Eng. News, Feb. 12 to March 12.		Feb. 12
Mar. 10.	Railway grading, McComb City, Miss. Advertised, Engineering News, Feb. 26.		Feb. 26
Mar. 10.	Paving and sewers, Des Moines, Ia.		Feb. 26
Mar. 10.	Bridge, Plainwell, Mich.		Feb. 26
Mar. 10.	Bridge, South Center, Kan.		Feb. 26
Mar. 11.	Steam heating, Wilkesbarre, Pa.		Feb. 5
Mar. 11.	Buildings, Fort Wright, Wash.		Feb. 19
Mar. 11.	Building, Columbus, O.		Feb. 19
Mar. 11.	Sewer, Brooklyn, N. Y.		Mar. 5
Mar. 11.	Gun forgings, Washington, D. C.		Mar. 5
Mar. 12.	Boilers, etc., Buffalo, N. Y.		Mar. 5
Mar. 12.	Electric light plant, Chanute, Kan.		Mar. 5
Mar. 12.	Copper wire, New York, N. Y.		Mar. 5
Mar. 12.	Pipe and castings, Cleveland, O. Advertised, Eng. News, Feb. 19 to Mar. 12.		Feb. 19
Mar. 12.	Roads, Jefferson Barracks, Mo.		Feb. 19
Mar. 12.	Dredging, Portland, Me. Advertised, Eng. News, Feb. 12 to March 12.		Feb. 12
Mar. 12.	Electric lighting, Austro-Hungary		Feb. 5
Mar. 12.	Steam apparatus, Janesville, Wis. Advertised, Eng. News, Feb. 5 and 12.		Feb. 5
Mar. 12.	Building, Valley City, N. Dak.		Feb. 26
Mar. 12.	Equipment (Bldgs.), Johnson City, Tenn.		Feb. 26
Mar. 13.	Water supplies, Cleveland, O.		Feb. 26
Mar. 13.	Building, Sac City, Ia.		Feb. 26
Mar. 13.	Pipe, etc., Boone, Ia.		Mar. 5
Mar. 13.	Bridge work, Washington, Ind.		Mar. 5
Mar. 13.	Paving, South Bend, Ind.		Mar. 5
Mar. 13.	Building, New York, N. Y.		Mar. 5
Mar. 13.	Paving, Boone, Ia.		Mar. 5
Mar. 13.	Street sprinkling cans, New York, N.Y.		Mar. 5
Mar. 14.	Paving, Brooklyn, N. Y.		Mar. 5
Mar. 14.	Paving, Wilmette, Ill.		Mar. 3
Mar. 14.	Building, Springfield, O.		Mar. 5
Mar. 14.	Track scale, Washington, D. C.		Mar. 5
Mar. 14.	Steel dry-dock, Philippine Islands		Feb. 19
Mar. 14.	Water pipe, Washington, D. C. Advertised, Engineering News, Feb. 26.		Feb. 26
Mar. 15.	Road roller, San Diego, Cal.		Feb. 12
Mar. 15.	Water pipe, Lexington, Mass.		Mar. 5
Mar. 16.	Water-works, Lake Park, Minn.		Mar. 5
Mar. 16.	Building, Seymour, Wis.		Mar. 5
Mar. 16.	Paving, Wichita, Kan.		Mar. 5
Mar. 16.	Electric light plant, Prince Albert, N.W.T.		Feb. 19
Mar. 16.	Paving, Menominee, Mich. Advertised, Eng. News, Feb. 19 and 26.		Feb. 19
Mar. 16.	Breakwater repairing, Burlington, Vt. Advertised, Eng. News, Feb. 19 to Mar. 19.		Feb. 19
Mar. 16.	Dam, Wilmington, Del. Advertised, Eng. News, Feb. 19 to Mar. 19.		Feb. 19
Mar. 16.	Dredging, Boston, Mass. Advertised, Eng. News, Feb. 19 to Mar. 19.		Feb. 19
Mar. 16.	Dredging and machinery, Portland, Ore. Advertised, Eng. News, Feb. 12 to March 12.		Feb. 12
Mar. 16.	Dipper dredge, etc., Portland, Ore. Advertised, Eng. News, Feb. 12 to March 12.		Feb. 12
Mar. 16.	Pumping engine, St. Paul, Minn.		Feb. 26
Mar. 16.	Bridges (6), Olathe, Kan.		Feb. 26
Mar. 16.	St. lighting, Cory, Pa. Advertised, Engineering News, Feb. 26.		Feb. 26
Mar. 16.	School, Cleveland, O.		Feb. 26
Mar. 17.	Bridge, Kearney, Neb.		Feb. 26
Mar. 17.	Dam, Cincinnati, O.		Feb. 19
Mar. 17.	Sewers, Dayton, O.		Feb. 19
Mar. 17.	Cold storage, etc., Cincinnati, O. Advertised, Eng. News, Feb. 19 to Mar. 12.		Feb. 19
Mar. 17.	Tram cars, London, Eng.		Mar. 5
Mar. 18.	Water tower, Marshall, Tex. Advertised, Engineering News, Mar. 5.		Mar. 5
Mar. 18.	Water-works, Georgetown, S. C.		Feb. 19
Mar. 18.	Sewer, Georgetown, S. C.		Feb. 19
Mar. 19.	Post office, Minneapolis, Minn. Advertised, Eng. News, Feb. 19 and 26.		Feb. 19
Mar. 19.	Building, Columbus, O.		Feb. 26
Mar. 19.	Building, Cincinnati, O.		Mar. 5
Mar. 20.	Building, Chillicothe, O.		Mar. 5
No date.	Water tanks, Toronto, Ont. Advertised, Eng. News, Feb. 26 to Mar. 19.		Feb. 26

RAILWAYS.

(For foreign railways see under "Foreign Contracts and Export News.")

ARKANSAS COAL & MINERAL.—Incorporated in Arkansas with $350,000 capital stock to build a line from Dyer through the coal mining district of Huntington and adjacent territory for a distance of 50 miles. E. T. McConnell and John J. Goldsby are among those interested.

ATLANTA, KNOXVILLE & NORTHERN.—It is stated that this company contemplates changing the main line from Wetmore station, on the Hiwassee River, leaving the Ducktown district and Blue Ridge, Ga., off the line. The plan is to build down the Oconee River, going through Benton, Tenn., following the Matlock's Valley and the Conasqua River, reaching ultimately a point near Resaca, Ga. The present line is not to be abandoned, but will not be used for any fast traffic. R. Montfort is Ch. Engr., Louisville, Ky.

BELLINGHAM BAY & BRITISH COLUMBIA.—J. J. Donovan, Gen. Supt., Whatcom, Wash., is reported to have ordered the commencement of surveys at once for the line from Hampton Siding to Leynden, Wash. The construction will soon follow.

BIRMINGHAM, COLUMBUS & GULF.—We are informed that this company, recently formed in Alabama, will take over the exploded project of the Columbus, Eufaula & Gulf R. R., and will open subscriptions for stock March 10. It is likely that the new company will take over the roadbed constructed by the C., E. & G.

BINGHAMTON & SOUTHERN.—Incorporated in Pennsylvania with $1,000,000 capital stock, of which $500,000 has already been paid in, to build a line from Williamsport to a point in New York state, passing through Susquehanna, Bradford, Sullivan and Lycoming counties, having a length of 100 miles in Pennsylvania and 15 miles in New York. Rollin W. Meeker, Binghamton, N. Y., is interested.

BIRMINGHAM, COLUMBUS & ST. ANDREW'S BAY.—This road will run from St. Andrew's Bay, Fla., north via Chipley, Dothan and Eufaula, Fla., thence to Birmingham, with a branch to Columbus or via Columbus to Birmingham, having a total length of 300 miles. W. O. Butler, Sr., Chipley, Fla., has stated that the line will be built.

BLACKSTONE & SOUTHERN.—J. M. Harris, Pres., Blackstone, Va., writes us that the matter of construction will be taken up within a few months. The line was surveyed in December last, and the route, which is some 20 miles long, found to be favorable. W. A. Land is Ch. Engr., Blackstone.

CALIFORNIA.—Reports from Oroville, Cal., state that H. H. Yard, probably of San Francisco, will build a line of railway up the North Fork of the Feather River, to a point where he has recently purchased some timber and mining claims. This line will be known as the Butte & Plumas R. R. and will be about 55 miles long. Another line he is planning is the Indian Valley R. R., which will run into the Indian Valley, and be 25 miles long. Some 15 miles of the right of way has been secured for this last-named road. About 50 miles of both roads will run through thickly-timbered country, and the remainder through a rich mining region. Mr. Yard was recently stopping at the Palace Hotel in San Francisco.

CANADA.—The commissioners appointed to build this road have elected A. E. Ames their chairman, to close the contract for the purchase of the rails, etc. His address is in care of Board of Trade, Toronto, Ont.——Robt. Rogers, Minister of Pub. Wks., Manitoba, has announced that the Canadian Northern Ry. will build this summer lines from Neepawa to Carberry and northerly; also from Portagela Prairie to Brandon.——The lines to be built by the Midland Ry. of Manitoba, for which application is now being made, will aggregate some 2,000 miles, and cost in the neighborhood of $30,000,000. The first line will be run from the boundary to Winnipeg. Nothing will be done in the matter of surveys until the charter is secured. C. E. Hamilton, St. Paul, Minn., is interested.

CANADA, CLEVELAND, COLUMBUS, OHIO STATE & NEW ORLEANS.—This recently incorporated company is the successor to the Painesville, Wooster & Ohio Ry., a practically defunct corporation chartered in 1886, and is one of the projects of A. E. Boone, of Zanesville, O. The project contemplates lines running in various directions in Ohio, and will include the long-talked of Black Diamond road, incorporated in 1899. It is said that B. E. Cutler, C. E., Grove City, Pa. will be chief engineer.

CENTRAL FLORIDA & INDIAN RIVER.—Application has been made to the Governor of Florida for the incorporation of this company, with $2,000,000 capital stock, to build a line from Melbourne to Orlando and Bartow, about 125 miles in length. J. S. Jenkins, Jr., New York; Wm. T. Wells, Melbourne, Fla., and E. O. Painter, Jacksonville, are among the incorporators.

CHARLESTON & WESTERN CAROLINA.—The track of this road in South Carolina will soon be extended 2½ miles to connect with the Monaghan mill and Greenville, S. C., bleachery. A. H. Porter is Engr. Roadway, Augusta, Ga.

CHICAGO & ILLINOIS WESTERN.—Incorporated in Illinois with $25,000, to build a line from the north line of Cook county in a southerly direction through Cook, Will and Kankakee counties. John T. Evans, David Plummer, A. V. Kosberg and W. E. Phillips, of Chicago, are incorporators.

CHOCTAW OKLAHOMA & TEXAS.—The W. R. Stubbs Contracting Co., Lawrence, Kan., has received a contract for the grading, concrete work and bridging on a line from Tucumcari, N. Mex., northeast 112 miles to a point intersecting the Choctaw, Oklahoma & Gulf line. The contract involves some heavy work and a cost of about $1,000,000, and the contractors have already done some subletting.

CUMBERLAND MT. COAL, IRON & R. R. CO.—A charter has been granted this company in Tennessee. Active work on the right of way has already commenced, and 75 miles of the road surveyed. Grading will start as soon as good weather sets in. The line will be about 125 miles long and will tap the oil and coal and timber regions of Tennessee and Kentucky. J. H. McCord is Pres., and P. W. Keith, Secy. and Treas., both of West Point, Miss.

DANVILLE & EASTERN.—This company has been incorporated in Illinois with $50,000 capital stock, to build from the eastern line of Vermillion county to Danville. C. M. McCab, Covington, Ind.; H. C. Martin, Attica, Ind., and W. C. Johnson, and Geo. T. Buckingham, Danville, are incorporators and directors.

DAYTON, UNION & HUNTINGTON.—Chief Engineer Williams is reported to have stated that work will be started as soon as the weather is favorable. The work will have to be pushed as only six months is given in which to complete the line.

EASTERN ARKANSAS R. R.—G. T. Updegraff, Pres., Helena, Ark., informs us that work on this road will be started about March 15. The line will be 110 miles.

FT. WAYNE & SOUTHERN.—General Manager Nelson of the Ft. Wayne & Southwestern, Ft. Wayne, Ind., is reported to have received positive orders to begin at once on the building of the branch from the Fort Wayne & Southwestern to Marion, Ind. The road will be known as the above. The road has been financed and the rails and other materials will now be purchased.

LAWTON, WICHITA & GULF.—G. W. Crosby, Mgr., Lawton, Okla., writes us that a preliminary survey has been made from Lawton to Red River. The line will run through northwest Oklahoma to the Gulf of Mexico via Lawton and Wichita Falls, Tex., and be some 650 miles in length. Maps are being made through the Indian reservations and the company is preparing to secure the rights of way from the government. The matter of contracting is undecided. R. E. Huff, Wichita Falls, is Pres., and J. S. Lozier, Lawton, is Ch. Engr.

LONG ISLAND R. R.—Contracts have been made for an electric block signal system on this line. All the bridges will be put in good condition.

MAINE & NEW HAMPSHIRE.—Application has been made to the Maine legislature for the incorporation of this company, which is to have a capital stock of $5,000,000, and is to build a line from Steep Falls, on the Maine Central, to Limington and Hollis, connecting with the Boston & Maine.

MINNITAKIE, LAC SEUL & ALBANY RIVER.—Shilton, Wallbridge & Martin, Solicitors, Toronto, Ont., inform us that this road will be between 180 and 200 miles long, running between the points named, with a branch to Sturgeon's Lake. The motive power will probably be steam, but electricity is under consideration. Part of the route, which is through unexplored territory, has been surveyed, and it is expected to commence construction early next summer. The capital is partially secured; the capitalization being $1,000,000.

MISSOURI PACIFIC.—Reports state that the officials of this road are considering the purchase of more equipment, costing about $5,000,000, among which will be the following items: 50 large freight locomotives, 5,000 box cars and 250 stock cars and flat cars. Wm. G. Nixon is Pur. Agent, St. Louis, Mo.

MONTANA R. R.—F. T. Robertson, Ch. Construct. Engr. and Surveyor, was recently in Lewistown, Mont., from the Harlowton, for the purpose of securing a route into that city.

NASHVILLE, CHATTANOOGA & ST. LOUIS.—A contract has been awarded to Chas. J. McKinney & Co., Knoxville, Tenn., for building the extension of this line from Tracy City to Mineral Ridge, Tenn.

NORTHEAST ARKANSAS.—F. G. Taylor, Jonesboro, Ark., has made application for a charter for this road in Arkansas, to run from Piggott, on the "Cotton Belt," to a point on the St. Francis River, at Section 22, Township 19 north, a distance of nine miles. The capital is placed at $100,000. J. M. Meyers, R. J. Goeppinger and D. D. Throgmorton are also interested.

OHIO.—A company has been incorporated in Ohio by Albert E. Boone, John W. Marguard, H. Baldwin and others to build a line of railway from Dayton to New Comerstown. This company will be known as the Dayton, Springfield, Columbus, Ohio, Belt Lines & Eastern Steam Coal Ry. Co., Zanesville.

PENNSYLVANIA R. R.—It is said that the company is planning extensive improvements to its property in Baltimore, Md., including in which will be a belt line around the city from a point on the Northern Central to the Canton elevator terminals. W. H. Brown is Ch. Engr., Philadelphia, Pa.

PEORIA & PEKIN UNION.—J. C. Bell, Asst. Engr. M. W., Peoria, Ill., informs us that nothing definite is decided on yet for the East Peoria yard, of which note was made in our issue of Feb. 5.

REPUBLIC & KETTLE RIVER.—H. W. Warrington, Gen. Supt., Grand Forks, B. C., writes us that this road is completed and operating 42 miles of line from Grand Forks to Republic, Wash. The principal traffic is hauling ore from Republic to Boundary smelters.

RIO GRANDE & SOUTHWESTERN.—Articles of incorporation have been filed in New Mexico for a line 42 miles in length, running from a junction with the D. & R. G., in Rio Arriba county, N. Mex., and extending in a southeasterly direction to the Jicarilla-Apache Indian Reservation. The capital stock is $150,000. Edgar M. Biggs, Edith, Colo.; Benj. F. Hill, Denver, Colo., and Fred. E. James, Lumberton, N. Mex., are directors.

RUSSELLVILLE & DOVER.—Incorporated in Arkansas with $125,000 capital stock, to build a line north through Pope county, by way of Taral to Dover. W. A. Bird is Pres.; Wm. Simpson, J. B. West, R. J. Owens and others of Russellville and Dover are incorporators.

ST. LOUIS & SAN FRANCISCO.—The contract is reported to have been let for building the line from Oklahoma City, Okla., to Avard, on the Panhandle division, and also for the line from Oklahoma City southeast to Hugo, Ind. Ter.

SPRINGFIELD SOUTHWESTERN.—A charter has been issued this company in Missouri for a standard gage line from Eldon, to a connection with the White River R. R., now being constructed between Batesville and Carthage. The road will be about 160 miles long and will pass through 11 counties. Much of the right of way has been obtained, and construction will be started as soon as the weather permits. The capital stock is $1,600,000. C. G. Warner, Russell Harding, F. W. Ireland and E. S. Merrian are interested.

SUGAR PINE RY.—Incorporated in California by R. L. Beardsley, Stockton, and others, with a capital stock of $1,000,000, to build a road into the timber belt south of the Calaveras big trees, to haul logs to the new saw-mills recently completed. The road will be a narrow gage line, and connect with the Sierra Ry. at Campbells Station.

TRANSCONTINENTAL.—Reports state that R. Macdonald, C. E., has left Selkirk, Man., for Norway House to commence work on the survey of this line, and will join the party under Mr. Perry near that place, and explore the country east of there.

UNION PACIFIC.—It was recently reported that the company would award contracts at Omaha, Neb., on Feb. 16 for building over 300 miles of double track along the main line to the west, and also for the Ogden Canon-Salt Lake City cut-off. One of the contracts is said to be for 70 miles of double track out of Kansas City, and the other for over 200 miles of double track in Wyoming, to be built this spring. J. Berry is Ch. Engr., Omaha.

WYOMING.—Reports from Newcastle state that the Horseshoe Co., which recently purchased the Cambria mines, is now sending out surveyors preliminary to the construction of a new narrow-gage railroad from this place to the Cambria coal camp, 20 miles north. The new company will also add 50 coke ovens, with a monthly output of 20,000 tons.

Information concerning contracts to be let or of supplies to be purchased, and corrections of errors and omissions in published items, are invited.

STREET AND ELECTRIC RAILWAYS.

(For foreign street and electric railways see under "Foreign Contracts and Export News.")

AUGUSTA, ME.—The Winterport, Franklin & Prospect Electric Ry. Co. proposes building a road from Winterport to Hampden Corners, and connecting with the B., H. & W. line. The company is capitalized at $500,000, and Chas. A. McKenny, Albert Pierce and Chas. V. Hill are interested.

NASHUA, N. H.—A charter has been granted to the Hollis & Nashua Electric Ry., to build from the Broad St. terminal in this city through Hollis Center to the Pepperall boundary.

BURLINGTON, VT.—It is stated that the Franklin County Traction Co., chartered by the last legislature, which will construct and operate a road in St. Albans through the towns of Georgia, Milton, Westford, Colchester, Essex and Fairfax, is now busily engaged in planning, engineering and financing the road. Among those interested are John J. Flynn, Burlington; S. A. Brownell, Essex, Vt.; H. F. Leland, Worcester, Mass., and L. S. Tillotson, St. Albans, Vt.

ATTLEBORO, MASS.—The board of selectmen has granted a franchise to the Attleborough & Mansfield Electric St. Ry. Co. for its line in this town. Homer M. Daggett, Jr., is interested.

GREAT BARRINGTON, MASS.—O. C. Bidwell, Secy. Hudson & Berkshire St. Ry. Co., informs us that the company is about ready to receive bids for the construction of its line of 65 miles. The location survey has been made, and work is to be started in the spring. H. F. Keith, of this city, is consulting engineer.

ALBANY, N. Y.—The application of the Union Traction Co. for permission to operate an electric road from Batavia to Olcott, on Lake Ontario, was given a hearing by the railroad commission on Feb. 18. F. S. Downs, Medina, is Pres. The commission also gave a hearing on the application of the Barney Traction Co. for authority to build 4½ miles of electric road from Salamanca to the S. & H. B. junction on the B. R. & P. road; also of the Salamanca & Little Valley Traction Co. to build a road between Salamanca and Little Valley, some nine miles.——The South Shore Traction Co. of Patchogue has been incorporated with a capital stock of $2,000,000, to build an electric road from Jamaica to the South county road in New Haven, some 60 miles long. C. G. Perot, New York; Chas. H. Davis, Petersburg, Va.; Edward Phillips, Brooklyn, N. Y., and Samuel Worthington, Ferney, N. J., are directors.

AUBURN, N. Y.—Plans have been perfected by the Syracuse & Auburn Ry. Co. for extensive additions to its system in this city. T. M. Hunt, local attorney, is securing rights of way for the new lines.

NEW YORK, N. Y.—Wm. Barclay Parsons, Ch. Engr. Rapid Transit Co., has suggested plans and made recommendations to the Rapid Transit Commissioners for new transportation facilities in this city in the way of extensions and improvements of the Interborough Co.'s and allied properties. It is not likely that anything will be done at once on his suggestions.

TROY, N. Y.—J. N. Paige, Secy. Forest Park Ry. Co., 14 State St., Troy, writes us that the survey is completed and the franchise secured for the town of Brunswick, but the franchise is not yet secured from the city of Troy. The line will be about two miles long and operated electrically. Jacob V. Jacobs, Troy, is Pres., and G. D. Baltimore, Ch. Engr., 162 Eighth St., Troy.

CHESTER, PA.—The Chester Traction Co. has secured a new franchise on the Providence road and will build an extension of its line from 24th St., this city, to Palmer's Corner. A. G. Jack is Supt.

NEW COLUMBIA, PA.—The Shickshinny & Huntingdon Valley R. R. Co. has obtained a charter and will soon start work on its line from Shickshinny to this place, about eight miles. R. P. Robinson, Wilkesbarre, is interested.

PHILADELPHIA, PA.—W. S. Twining, Ch. Engr. Philadelphia Rapid Traction Co., writes us that he has sent out the plans for bids to a few contractors for the first section of the proposed subway in Market St., between Broad St. and the Schuylkill River. Local papers give the following contractors as those who have been invited to bid on March 16, the date set for the opening: D. J. McNichol & Co., B. D. Smith Co., Mason, Hoge & Co., and Ryan & Kelly, of this city, and J. B. McDonald, of New York.

PITMAN, PA.—It is announced that the South Jersey Gas, Electric & Traction Co. will build its line from Mantua to Clayton via Barnsboro, Pitman and Glassboro. F. D. Moses is Ch. Engr., Trenton, N. J.

HUNTINGTON, W. VA.—An electric road from Washington, D. C., to the Falls of the Potomac, a distance of 20 miles, is being promoted by local parties, headed by Joseph S. Miller. It is reported that work of surveying and securing rights of way has been started. The road will cost something like $3,000,000. John Graham, Pres. Camden Interstate Ry., and Geo. F. Miller, Pres. First National Bank, are interested.

WHEELING, W. VA.—The stockholders of the proposed Williamstown-Moundsville electric railway elected officers on Feb. 26 as follows: J. A. Wagner, Wheeling, Pres.; O. H. Suck, St. Mary's, Vice-Pres.; J. W. Adams, Wheeling, Secy., and J. R. Wallace, Parkersburg, Treas. The company is capitalized at $100,000, and is now taking steps to secure franchises in the towns of Waverly, Friendly, St. Mary's, Sisterville and New Martinsville. It is said that as soon as the preliminary steps are completed the work of construction will be let and commenced.

ATLANTA, GA.—Application has been made for a charter for the newly-organized Atlanta & Marietta Electric Ry., to be capitalized at $600,000, and to run a line between the points named, passing near Randall shoals. D. B. Gray, New York; P. D. McCarley, Fulton county; A. T. Cox, De Kalb county, and W. R. Power, Cobb county, are interested.

CLARKSVILLE, TENN.—It is reported that the Louisville & Nashville R. R. is preparing to build an electric line from this place to Hopkinsville, Ky. Press dispatches announce that the company has purchased large quantities of supplies in the East, and that the proposed line will follow the route of Clarksville and Hopkinsville Pike, a distance about 25 miles. R. Montfort is Ch. Engr., Louisville, Ky.

INDIANAPOLIS, IND.—Chas. L. Henry, Pres. of the Indianapolis-Cincinnati Interurban Co., has opened an office in this city, and announces his readiness to receive bids for grading and bridge building. The line will be double tracked.——The Huntington, Columbia & Northern Traction Co. has filed articles of incorporation with a capital stock of $50,000, to build a road from Huntington to Columbia City. J. A. W. Kintz, Huntington, is Pres., and Willis B. Jones, Huntington, Secy.

LAFAYETTE, IND.—It is reported that the Fountain-Warren Traction Co., which has secured a franchise in this city, will soon incorporate to include Danville in its proposed line. It is now planned to build a line between Lafayette, Covington, Ind., and to Danville, Ill. C. M. McCabe, Covington, and H. C. Martin, Attica, are interested. The company expects to start work within a month, and considers the most difficult feature of the planned construction the building of a bridge over the Wabash River at Covington.

QUINCY, ILL.—The contract for the Quincy & Western Illinois Electric Ry., which is to be an interurban line, has been let to Brady, Howard & Co., of Chicago. E. H. Arnold, Ch. Engr., Quincy, Ill.

SPRINGFIELD, ILL.—The St. Louis, Vandalia & Eastern Electric Ry. Co. has been incorporated with a capital stock of $50,000 by Wm. M. Fogler, Chas. G. Sonneman and Geo. D. Steinhauer.

VANDALIA, ILL.—A company has been formed to build an electric line from East St. Louis to Terre Haute. The work of securing the franchises, rights of way, etc., will begin at once, and the construction will soon follow. The capitalization is $50,000. W. M. Fogler and T. N. Lakin, Vandalia; Eugene Shleit, Highland, N. J., and Edward Stewart, Greenup, are incorporators.

SUN PRAIRIE, WIS.—S. W. Curtis, C. E., Sun Prairie, informs us that surveys have been begun for the Madison & Northeastern Electric Ry., from Madison to Fond du Lac, through Sun Prairie, Columbus, Beaver Dam and Waupun, a distance of 76 miles. The preliminary work is under the direction of Mr. Curtis, C. E., for the Knox Engineering Co., Fisher Bldg., Chicago, Ill.

OMAHA, NEB.—The stockholders of the Omaha, Decatur & Northern Ry. have elected their directors. Already 10% of the $1,000,000 has been subscribed, and will be used for the grading between Decatur and Omaha, the right of way having already been secured. It is expected that work will start by May 1. Upon the completion of the grade bonds will be issued to buy rails and build the power house, which will be located at Decatur. The Sioux City end of the road will be started after the completion of the Omaha end. About 100 miles of line will be constructed.

TECUMSEH, OKLA.—A franchise has been granted for an electric road from this city to Shawnee, and work will commence as soon as the weather will permit.

SPOKANE, WASH.—The promoters of the Coeur d'Alene & Spokane Ry., which will build the proposed electric line between this city, Post Falls and Coeur d'Alene City, are preparing to begin active work as soon as the weather permits. Meanwhile, it is reported, contracts are being made for the materials for the construction, and F. A. Blackwell, who has been visiting eastern cities in the interest of the project was recently in St. Paul, Minn., on his way back to Spokane, where he has probably reached by now. The rights of way are provided for.

HILLSBORO, ORE.—The West Side & Suburban Ry. Co. has been granted a right of way over a number of streets of this city.

OAKLAND, CAL.—Bids are asked by supervisors until March 30 for a street railway franchise along Pleasant Valley Ave. Application made by J. H. Macdonald.

SAN JOSE, CAL.—Bids were called for by the San Jose, Saratoga & Los Gatos Ry. Co. on Feb. 14 for constructing 22 miles of electric railway in Santa Clara county. James W. Rea, Pres., stated on that date that the materials, in the shape of rails, etc., were on the way and would soon reach here, and it was likely that work would be started by March 1. The company will expend a considerable sum in improvements to Congress Springs, where a new hotel will be put up. F. S. Granger, Gen. Mgr., is in charge of the work.

SAN PEDRO, CAL.—The Pacific Electric Ry. Co. has been granted permission to build and operate a road over the streets of this city, and is expected to begin work within 90 days.

BOISE, IDAHO.—Local papers state that the county commissioners have granted a franchise to the Intermountain Electric Co., represented by W. N. Donaldson, for a line from this city to Meridian and the county boundary line. The company will use a three-rail system, and will complete its entire road by July 1, 1905.

SALT LAKE CITY, UTAH.—Chas. L. Furey, Pres. Salt Lake & Suburban Ry., 171 La Salle St., Chicago, Ill., writes that his company was organized last June with a paid-up capital of $500,000. It holds franchises in the city of Salt Lake, and will run a line to Murray, Bingham Junction, Taylorsville, Sandy, Union, Holliday and Mill Creek Canyon. The road will be an electric, carrying freight and passengers, some 40 miles long. The company controls the limestone quarries in the Mill Creek Canyon, and will supply the smelters in Salt Lake with limestone for fluxing purposes; the smelters are now using 1,000 tons per day. A bond issue of $1,000,000 will be made to cover the cost of construction. Contracts have not yet been awarded. A. V. Taylor, of Salt Lake City, advises us that the awards will be made about March 20. Guy Sterling, city, is Ch. Engr.

BERLIN, ONT.—W. H. Breithaupt, Pres. Berlin & Bridgeport Electric St. Ry., has stated that the company has under consideration the matter of extending its road through Bloomingdale to Conestoga and West Montrose to Fergus.

OTTAWA, ONT.—Local papers state that the Ottawa Electric Ry. Co. will build the Bell St. extension this year. T. Ahearn is Pres.

MONTREAL, QUE.—H. A. Hodge, Pres. Montreal Subway Co., 26 San Savannah St., informs us that surveys have been completed for the proposed electric underground railway, which will run under the St. Lawrence River and the city of Montreal, with one central station and one or more substations. Guy C. Emerson is Ch. Engr., 21 Chestnut St., Boston, Mass.

LIGHT, HEAT AND POWER PLANTS.

(For foreign heat, light and power plants see under "Foreign Contracts and Export News.")

HUDSON, N. H.—Town may establish electric light plant.

BRATTLEBORO, VT.—C. A. Harris, Secy. Citizens' Com., writes us that nothing has been done toward damming the river at Brattleboro save to obtain a charter from Vermont. A charter will now be obtained from New Hampshire, but it is not probable that work will be begun before 1904.

READSBORO, VT.—W. D. Howe is interested in a project for a dam at Howe Pond and the building of a 2,000-HP. electric plant.

FALL RIVER, MASS.—The Old Colony Street Railway Co. will purchase the wharf property at Ferry St. and will erect there a 10,000-HP. power plant. Orders for boilers and engines are reported to have been placed.

GREENFIELD, MASS.—Clapp & Abercrombie, Engrs., Greenfield, have made plans for F. A. Pond for developing the water power known as Gardner Falls. The plans are said to provide for a dam 285 ft. long and 14 ft. high, to be built of logs. It is estimated that 400 HP. can be developed.

MANSFIELD, MASS.—Town electric plant talked of.

MERRIMAC, MASS.—Light and water plant discussed.

CANAAN, CONN.—The New Milford Power Co. has asked legislative leave to erect a dam across the Housatonic River in this town.

NEW MILFORD, CONN.—New Milford Power Co. is asking charter for a 12-ft. dam at Falls Village.

BINGHAMTON, N. Y.—E. W. Dickerman, Arch., has been working on plans for the county's new heat and light plant for Court House Sq.

BINGHAMTON, N. Y.—Bids are asked until March 31 for furnishing, lighting, supplying illuminant and mantles and caring for 318 or more incandescent or naphtha street lamps of 60 c. p., as stated in our advertising columns. I. C. Hull, Cy. Clk.

DANVILLE, N. Y.—The Mill Creek Electric Light & Power Co. will, it is said, begin work this spring on its electric plant. An 8,000,000-gallon reservoir will be constructed and from this a 33-in. steel feed pipe, 8,000 ft. long, will lead to two 350-HP. Pelton water wheels. F. A. Owen is interested.

ONEIDA, N. Y.—The Madison County Gas & Electric Co. will extend its mains this spring to Canastota.

SCHENECTADY, N. Y.—Reports state that the Schenectady Railway Co. has completed plans for a new power house, to cost $30,000, exclusive of machinery, on Dock St.

TROY, N. Y.—It is announced that the Hudson River Power Co. will build a granite dam across the Sacandaga River at Conklingville that will flood an area of 44 sq. miles.

PLEASANTVILLE, N. J.—The Mainland Gas Co., John Sanders, Pleasantville, has secured a franchise and will soon take estimates for a $40,000 plant.

HONESDALE, PA.—T. B. Clark & Co. contemplate establishing a water-power electric plant here.

LANCASTER, PA.—Work is to be started this spring by the Lancaster Steam Heating Co. on the erection of a central heating plant. Contracts for the equipment have not been placed. Joseph L. Dunn is interested.

LOWER MERION, PA.—Reports state that the Lower Merion Street Railway Co., L. K. Perot, Arcade Bldg., Philadelphia, Contemplate the erection of an electric light plant in this place.

PHILADELPHIA, PA.—M. E. Arnold & Co. has contracts for electric light plants at two private residences and for the electric power plant of the Delaware County Machine Works.

PHOENIXVILLE, PA.—The borough contemplates the acquiring of a new electric light plant. E. L. Buckwalter is Chn. Lgt. Com.

PITTSTON, PA.—The Hillside Coal & Iron Co., W. A. May, Dunmore, Pa., contemplate the erection of a new power and electric light plant at this place.

SCRANTON, PA.—The Board of Control, E. D. Fellows, City Hall, is considering matter of a power plant for the public school buildings.

SHENANDOAH, PA.—Electric franchise granted company.

YORK, PA.—The council has ordinance for municipal electric light plant.

BALTIMORE, MD.—Contract for $75,000 boiler and power house of Baltimore Refrigerating & Heating Co. has been let to J. Henry Miller.

ALEXANDRIA, VA.—Reports state that the council light committee has been considering the matter of an incandescent electric light plant.

CALHOUN, GA.—J. T. Black is said to be getting up a company to put in a $11,500 electric light and power plant.

SHEFFIELD, ALA.—Henry Parsons, 30 Broad St., New York, N. Y., Pres. Sheffield Co., writes us that practically all the contracts for machinery have been placed. L. H. McIntire, Sheffield, was Des. Engr.

ST. FRANCISVILLE, LA.—The contract for installing electric light and water-works plants has been let to the Cole Manufacturing Co., Newman, Ga., and P. H. Porter, Clinton, Ky., at a total cost of $24,313.

BATESVILLE, MISS.—D. L. Rush, owner of the plant at Sardis, writes us under date of Feb. 23 that all material save arc lamps has been bought. The plant is to have a capacity of eight 200-c. p. arc lamps, besides the incandescents.

COLLINS, MISS.—Collins Light & Power Co. will, it is said, install electric light plant and water-works.

CHATTANOOGA, TENN.—The contract for the new buildings of Chattanooga Light & Power Co. has been let to the General Electric Co., Schenectady, N. Y. The contract aggregates $250,000.

CHATTANOOGA, TENN.—J. C. Howard, Chn. Bd. Pub. Wks., writes that the legislature has not authorized proposed bond issue. When this is done the city will vote on the matter. Reports state that $115,000 is to be used for a municipal electric light plant.

COLUMBUS, O.—Contracts for the lamps, transformers and switchboards for the municipal lighting plant have been let to the Western Electric Co., Chicago, Ill., at $33,200 for 1,500 lamps and transformers and $4,400 for switchboards.

PORTSMOUTH, O.—M. H. Longfellow, Engr., has been working on plans for a $100,000 brick and steel power house for the Portsmouth Street Railway & Light Co.

BRAZIL, IND.—Messrs. Page and Eaton, of the Chicago Sewer Pipe Co., are reported as interested in the construction of a gas plant at this place.

LAFAYETTE, IND.—The sum of $35,000 has been appropriated for a new heating plant at Indiana State Soldiers' Home in this place.

LAFAYETTE, IND.—Reports state that the Wabash Oil & Gas Co. will begin this month to construct dams and a $250,000 electric plant at Horseshoe Bend on the Tippecanoe River.

RUSHVILLE, IND.—It is reported that the power house of the Indianapolis & Cincinnati Traction Co. may be located here. The building is to be 600 × 800 ft. and with equipment will cost about $200,000. Chas. L. Henry is Pres., and John W. Moore Ch. Engr.

ADRIAN, MICH.—H. P. Stearns, Chn. Lgt. Com., writes us that project for municipal plant has been abandoned and a five-year contract awarded to the local company.

BENTON HARBOR, MICH.—A $40,000 municipal light plant will be voted on this spring.

CHEBOYGAN, MICH.—W. S. McArthur writes us that no definite steps have been taken for the plant of the W. & A. McArthur Co., Ltd., other than to procure franchise, dam site and flow lands. Plant is to be situated about

Information concerning contracts to be let or of supplies to be purchased, and corrections of errors and omissions in published items, are invited.

eight miles from the city and overhead wires will be used to conduct it there. The plant will probably generate about 1,000 HP. No contracts have been let as yet.

SAGINAW, MICH.—Municipal electric plant projected and city engineer is to prepare information for a 500 enclosed-arc light plant.

SAGINAW, MICH.—We are informed that plans and specifications have recently been ordered for a municipal electric lighting plant of 600 enclosed arc lights and that the city engineer is preparing a detailed estimate and a general plan from which the work can be properly ordered. R. W. Roberts is Cy. Engr.

ASHTON, ILL.—Steps are to be taken at once, it is said, for a public gas plant.

BLUFFS, ILL.—Electric light plant discussed.

CHICAGO, ILL.—The following bids were received Feb. 24 for electric generators for the post office, court house, etc.: Chicago Edison Co., Chicago, Ill., $54,652, 400 days; $53,881, 390 days; Sprague Electric Co., New York, $47,700, 180 days; Christensen Engineering Co., Chicago, Ill., $41,100, 100 days; Westinghouse Engine & Machine Co., Pittsburg, Pa., $52,875, 300 days; Crocker-Wheeler Co., Ampere, N. J., $38,750, 329 days.

FINDLAY, ILL.—V. M. Elmore writes us that he will install a plant in June or July to consist of engine, alternator, two boilers and steam-heating plant. The plant is to have a capacity of 15 arc of 2,000 c. p. each, and 800 incandescent, 16 c. p. each.

GALESBURG, ILL.—Bartlett & Kling, Contractors, Commercial Block, expect to put in a central heating plant for business and residence buildings, and wish to communicate with parties who have a practical system to offer.

BRUCE, WIS.—An electric lighting franchise has been granted the Bruce Electric Light Co., and a five-year contract for street lighting let to them.

JANESVILLE, WIS.—Municipal ownership of city electric lighting plant is advocated by Alderman Walter S. Rice.

BRIDGES

SKOWHEGAN, ME.—Town has voted to build $15,000 bridge over Kennebec River near Kennebec St. R. Francis Parker is a Selectman.

HANOVER, MASS.—We are informed that the county commissioners are considering the erection of a bridge at this place. Press reports state that the estimated cost of the structure is $20,000. E. C. Waterman is Chn. Selectmen.

SALEM, MASS.—An order for $20,000 for a wooden bridge over the B. & M. R. R. tracks at Castle Hill is before the council.

PROVIDENCE, R. I.—To do away with the grade crossing at Earl St. the Gorham Manufacturing Co. will build a 40-ft. wide trestle at a cost of $25,000.——The city engineer is to build stone abutments, to cost about $6,000, for a bridge to cross Adelaide Ave. The N. Y., N. H. & H. R. R. has agreed to build the bridge proper if this part of the work was done by the city.

HARTFORD, CONN.—Plans for the proposed Connecticut River bridge here will provide for either a stone or a steel structure. At an election last April $1,000,000 was voted for the former type of bridge. The bill authorizing the work has been signed by the President. Edwin D. Graves, 650 Main St., Hartford, is the engineer of the Bridge Commission.

NEW HAVEN, CONN.—It is stated that efforts are to be made to have the plans for the West River bridge changed so as to provide for a drawbridge instead of a stationary structure. The cost of the work is $400,000.

SCHENECTADY, N. Y.—C. W. Trumbull, Cy. Engr., writes us that the matter of the proposed bridge over Cotton Factory Hollow has been dropped for the present and possibly may not be taken up again.

NEW YORK, N. Y.—The following bids were received Feb. 18 for building 14 highway bridges, steel superstructures, across Croton Lake and tributaries; contract awarded the American Bridge Co.; M. R. Hill, Ch. Engr.:

Bids Received at New York, N. Y., Feb. 18, 1903, for Constructing Highway Bridges

Bidder.	Bridges No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 7.	No. 8.	No. 9.	No. 10.	No. 11.	No. 12.	No. 13.	No. 14.	Total.
Penn Bridge Co., Beaver Falls, Pa.	$71,700	$68,300	$80,400	$5,900	$7,200	$7,200	$7,200	$31,900	$2,000	$21,000	$6,200	$6,200	$16,800	$7,300	$329,300
Augustus Smith, 39 Cortlandt St., New York	85,652	64,261	74,534	5,900	7,940	29,100	5,120	7,940	2,389	7,940	5,120	18,160	15,609	6,500	336,165
New Jersey Bridge Co., 7 West 22d St., New York	72,000	63,000	82,000	6,000	7,000	29,000	4,000	7,000	2,000	7,000	4,000	20,000	12,000	5,000	320,000
King Bridge Co., Cleveland, O.	76,000	64,200	74,500	6,300	8,300	30,900	5,850	8,300	2,200	8,300	5,850	19,800	16,000	7,800	334,300
F. R. Long Co., Hackensack, N. J.	70,000	62,000	72,000	7,350	9,400	32,700	6,900	9,450	2,000	9,200	6,800	20,000	16,000	7,600	331,400
American Bridge Co., 100 Broadway, New York	66,000	59,000	67,500	7,100	8,200	28,300	6,100	8,200	2,300	8,200	6,100	19,600	16,000	7,500	310,700
H. C. Webster, 53 Dorchester Ave., Cleveland, O.	73,200	62,440	66,567	5,711	7,020	28,865	3,927	7,020	2,082	7,020	3,927	18,852	15,760	6,853	309,250
Berlin Construction Co., Berlin, Conn.	78,100	67,200	75,050	5,476	7,151	35,300	6,406	7,151	2,028	7,151	6,406	21,805	17,395	7,753	344,372

JANESVILLE, WIS.—City lighting plant discussed.

MILWAUKEE, WIS.—The bid of Chas. F. Rohn at $7,141 for furnishing an electric light plant at the county hospital has been recommended to the supervisors for acceptance.

SHEBOYGAN, WIS.—Reports state that the Sheboygan-Elkhart Electric Railway Co. will apply for a franchise for electric lighting in Sheboygan.

WATERTOWN, WIS.—The Watertown Gas Co. asks for a 20-year franchise and a ten-year contract.

WEST ALLIS, WIS.—A franchise has been granted to the Northwestern Heat, Light & Power Co., Max Nohl, Pres., and $150,000 plant is to be put in soon. P. O., Milwaukee, Wis.

MT. AYR, IA.—Electric lighting discussed.

PERSIA, IA.—Street lighting proposed.

ELY, MINN.—Council has purchased a 300-HP. Corliss engine for the electric light plant from the Allis-Chalmers Co., Milwaukee Wis., for $8,100.

FAIRFAX, MINN.—Municipal light plant to be erected.

CHANUTE, KAN.—Mayor John F. Roe writes us that bids will be received until March 12 for proposed city electric plant. The plant is to be operated by steam and is to have a capacity of 100 arc and 5,000 incandescent lights; the estimated cost is $30,000. E. H. Ricksecker, Coffeyville, Kans., is Des. Engr.

ST. PAUL, NEB.—Electric lights agitated.

SCOTLAND, S. DAK.—Lighting franchise granted W. B. Diehl and Frederick Becker, who propose to establish gas plant.

BAY CITY, TEX.—Local capitalists are taking steps for the establishment of an electric light plant, water-works and ice factory.

CISCO, TEX.—Electric light plant reported.

CANON CITY, COLO.—Reports state that bids are asked until March 10 for erecting gas plant for Canon City Gas Co., after plans of F. W. Cooper, Arch., Pope Block, Pueblo, Colo.

IMPERIAL, CAL.—W. H. Hartshorn, Mgr. Imperial Light, Water & Power Co., writes us that no definite movement has been made toward installing an electric light plant and probably none will be made before next fall.

BISBEE, ARIZ.—R. A. Nichols is forming a company to apply for a gas heating and lighting franchise.

SPRINGVILLE, UTAH.—P. S. Houtz, Cy. Recorder, writes us that an electric power and light plant is to be erected at an early date. The bond issue for the work was favorably acted upon at the Feb. 12 election.

BONDS.—Chambersburg, Pa., voted to issue $25,000 electric light, fire department and funding bonds.——Laurel, Del., authorizes issue $20,000 electric light bonds.——Mayor D. L. Cheatham writes that Sandersville, Ga., will vote March 24 on issue of $37,000 bonds.——Chattanooga, Tenn., proposes to issue bonds, $125,000 of which are for electric plant. See item elsewhere in this column.——Allegan, Mich., votes March 9 on $30,000 bond issue for purchase electric light equipment and water-works improvement.——Burr Oak, Mich., votes March 9 on $8,000 electric light bonds.——Schoolcraft, Mich., is to issue $11,450 electric light plant bonds.——Argyle, Minn., is said to be asking for bids until March 9 for $5,600 electric light bonds.——Caledonia, Minn., votes on $8,000 lighting bonds.——Lake Preston, S. Dak., may vote in May on light and water bonds.——Rockport, Mo., will vote on $7,000 electric and water plant enlargement bonds.——Springville, Utah, has voted to issue electric light plant bonds. See item elsewhere in this column.

NEW COMPANIES.—American Electric Co., Wheeling, W. Va.; $25,000; George Kurner, M. H. Stobbs.——Jackson Lighting Co., Jackson, Miss.; $25,000.——Austin Light, Heat & Power Co., Austin, Tex.; $2,500,000; Edw. C. Dowling, Brooklyn, N. Y.; Millard H. France, New York, N. Y.——Lone Oak Electric Light Co., Lone Oak, Tex.; J. H. Craig, C. O. Williams.——Boxelder Power & Light Co., Evanston, Wyo.; $100,000; Joseph M. Jensen, John Pingree.——Electrical Development Co., Toronto, Ont.; $6,000,000; W. H. Templeton, J. W. Rose, C. V. Bennett.

BUFFALO, N.Y.—The straightening of the Buffalo River will necessitate the erection by the city of about $50,000 worth of new bridges.

NEW YORK, N. Y.—It is stated that bids for constructing the New Manhattan Bridge will be called for not later than May 1. It is the intention of the department to call for bids for construction of the bridge as a whole. Geo. S. Morison is Chn. Bridge Comn.

SCHENECTADY, N. Y.—Reports state that the Dansbach ferry bridge, 14 miles from here, was damaged by high water to the extent of $20,000. The bridge is owned by a company.

JERSEY CITY, N. J.—J. P. Noonan, Asst. Clk. Bd. County Freeholders, writes us that specifications and plans are not drawn up yet for bridge between Kearney and Newark.

PHILIPSBURG, N. J.—The Northampton Bridge Co. and the Warren Bridge Co., with offices here, have been incorporated, each with $125,000 capital, for the purpose of erecting toll bridges over the Delaware River at Martin's Creek and Carpenterville. John H. Haggerty is interested.

SUNBURY, PA.—A bill is before the legislature for the construction of one or more Susquehanna River bridges between here and Clark's Ferry.

BALTIMORE, MD.—Surveys are said to have been made, rights of way secured and plans figured upon for the construction by the P. R. R. of a four-track structure to take the place of present bridge at Havre De Grace.

WASHINGTON, D. C.—Bids are asked until March 30 for the reconstruction of Pier No. 5 of the Aqueduct Bridge, as is stated in our advertising columns. Lt.-Col. Chas. J. Allen, U. S. Engrs., Washington, D. C.——The sum of $48,000 has been appropriated for the Connecticut Ave. viaduct, with authority for the commissioners to contract for the completion of the same at a cost not to exceed $788,000.

RICHMOND, VA.—The Virginia Passenger & Power Co. is said to be considering the advisability of constructing a new bridge over the James River from Richmond to Manchester.

BENWOOD, W. VA.—Official announcement has been made that the contract for rebuilding the B. & O. R. R. bridge at this place has been let to the American Bridge Co.

BRIDGEPORT, W. VA.—A bridge to cost $22,000 is to be built here by the citizens.

CLARKSBURG, W. VA.—The Brady Construction Co., of this place, has been given the contract to build all the pile and trestle work of the extension of the Wabash R. R. connection between Little Kanawha and the West Virginia Central.

COLUMBUS, GA.—The county commissioners are to take up the matter of an iron bridge over Bull Creek on the Macon Road. E. J. Rankin is a Comr.

HUNTSVILLE, ALA.—Judge William Richardson is urging a bill for constructing a connecting bridge over the Tennessee River, near Whitesburg, for railroad purposes.

CARTHAGE, TENN.—This town proposes to raise $15,000 and will ask the county to give $45,000 to bridge the Cumberland River.

COLUMBIA, TENN.—The contract for the Duck River bridge at Kettle Mills has been let to the American Bridge Co., New York, N. Y., for $9,100.

HARRIMAN, TENN.—Reports state that surveys are being made here for a bridge over the Emory River.

MEMPHIS, TENN.—The Memphis, Helena & Louisiana R. R. has been authorized to build a bridge over the St. Francis River in Lee county.

NASHVILLE, TENN.—Reports state that high water has carried away three bridges and a trestle of the Tennessee Central near Crab Orchard, besides damaging other bridges.

AKRON, O.—It is stated that a joint county and city bridge will be built over Little Cuyahoga River at Cuyahoga St. The estimated cost is given as about $9,000 for a 50-ft. long and 30-ft. wide concrete bridge. Philip Wagoner is a County Comr.

BUCYRUS, O.—The P. R. R. Co., it is said, will build here a stone bridge at a cost of $50,000 over the Sandusky River.

COLUMBUS, O.—The sum of $12,000 has been appropriated for repairing the iron work and painting the viaduct.

COLUMBUS, O.—We are informed that the engineers of the steam railroad companies and the city are to meet March 3 to consider plans and agree on the grades and relative elevation of street and tracks looking to the construction of viaducts at West Broad and South High Sts. Julian Griggs is Cy. Engr.

LOCKLAND, O.—The council has suggested that the trestle over Mill Creek, on the C., H. & D. R. R. switch be replaced by a span bridge.

COVINGTON, IND.—Park county commissioners are trying to arrange with Warren county for building bridges over the Wabash River at Independence and Big Shawnee.

NEWPORT, IND.—Vermillion and Park counties contemplate the erection of a joint county bridge over the Wabash at a cost of $58,000.

TERRE HAUTE, IND.—The commissioners are to ask the county council for $175,000 for building a new bridge over the Wabash River.

WASHINGTON, IND.—The Daviess county commissioners are asking for bids until March 13 for constructing stone abutments of two bridges.

BELDING, MICH.—J. T. Angell writes us that the letting of the contract for erecting a bridge over Grand River at Portland was adjourned to March 5, owing to the placing of an injunction on the building.

BERRIEN, MICH.—Berrien and Orinoko will vote on issue of $10,000 bonds each for building bridge over St. Joseph River at Berrien Springs.

DETROIT, MICH.—The Pere Marquette International Bridge Co. is being organized to build a bridge over the Detroit River near Grosse Island.

CHICAGO, ILL.—Designs are asked by the South Park Commissioners, 57th St. and Cottage Grove Ave., until March 18 for a bridge to be built in Jackson Park, costing not more than $35,000. E. G. Shumway, Secy.

CHICAGO, ILL.—The annual budget contains appropriation of $1,714,000 for new bridges, of which $420,000 will go for bridges now under contract. The remainder will be spent for bridges at Archer, North, Chicago and Torrence Aves., and Fuller and 37th Sts.

MORRISON, ILL.—The Whiteside county commissioners meet March 10, at which time an appropriation will probably be made for the erection of the proposed $21,000 joint county bridge at Hillsdale. The bridge proposed is to comprise two 250-ft. spans, resting on steel tubing, the center pier to be composed of two 72-in. tubes, filled with concrete, and connected by solid steel plates, and an ice breaker at the upper end.

DUBUQUE, IA.—The contract for the bridge at Dyersville has been let to the Clinton Bridge Co., Clinton, Ia., for about $6,000.

CROOKSTON, MINN.—Work is to be begun soon on the proposed $10,000 bridge for this place.

ST. PAUL, MINN.—The contract for the Arcade St. bridge has been let to the American Bridge Co. for $27,500.

ROBY, TEX.—Bids are asked until March 9 for constructing two iron bridges. Jesse Wright, County Judge.

FORT LARAMIE, WYO.—Contract for rebuilding bridge here has been let to Pueblo Bridge Co., Pueblo, Colo., for $1,220.

CHILLICOTHE, MO.—Citizens favor bridge at this place.

KANSAS CITY, MO.—Reports state that ordinances are to be passed providing for the construction of viaducts at 11 crossings of the Kansas City Belt Ry. Daniel W. Pike is Cy. Engr.

KANSAS CITY, MO.—Press reports quote A. E. Stilwell, Pres. Kansas City, Mexico & Orient Ry., as announcing that the actual construction of a new bridge across Missouri River, from Kansas City, Kan., to Clay county, would be in progress within three months.

ROBY, TEX.—Fisher county will vote March 21 on the issuance of $19,900 bridge and road bonds.

SPOKANE, WASH.—A. F. Gill, Cy. Engr., has estimated the cost of the proposed new approach to the Monroe St. at $24,000. The plans call for replacing the wooden piles and trestle work with steel.

ALLANDALE, ONT.—The county council will petition the government to construct an overhead bridge or subway at the Grand Trunk R. R. crossing in this place.

FREDERICTON, N. B.—Bids are asked by C. H. LaBillois, Comr. Pub. Wks., until March 9 for rebuilding Richard's mill bridge in Dalhousie parish, Alexander mill bridge on Tobique Road, and Louison River bridge in Durham parish.

BUILDINGS.

FORT ETHAN ALLEN, VT.—The following bids were received Feb. 20 for constructing two barracks, two officers' quarters, two gun sheds, etc., advertised in Engineering News; only the principal bids are given: (1) brick barracks, (2) officers' quarters, (3) stable, (4) gun shed, (5) time. T. B. Roberson, Burlington, Vt., (3) two stables without plumbing, $37,388; (4) two gun sheds, $3,995; (5) 8 months. Hiram H. Edgerton, Rochester, N. Y., (1) one, $47,700; both barracks, $99,066; (2) $33,964; (3) $20,297; with plumbing $41,980; (5) 9 months; (4) both, $31,300; (5) 6 months; for all work with plumbing, $299,900. Meads & Reynolds, Washington, D. C., (1) $49,229, two $84,350; (2) $38,679; (3) one $21,767; two $41,560; (4) both, $23,800; for all work, $200,000; (5) 9 months. Nichols & Parker, Essex Junction, (3) both, $38,000; (4) $12,207; stables and gun sheds, including plumbing, $63,160; (5) Sept. 1. Buckley Construction Co., Plattsburg, (1) both, $81,400; (2) 27,400; (3) both, $42,600; (4) both, $28,200. Chas. E. Currier, Boston, Mass., (1) both, $81,250; (2) $30,575; (3) both, $37,400; (4) both, $24,600; all buildings, $172,000; (5) 8 months. Fitzpatrick & Pennington, Plattsburg, (1) both, $65,943; (4) both, $20,910; barracks and gun sheds, $86,850; (5) Dec. 31. E. H. Dennis-

Information concerning contracts to be let or of supplies to be purchased, and corrections of errors and omissions in published items, are invited.

ton Co., Syracuse, N. Y., (1) both, $74,600; (2) $26,600; (3) both, $31,200; (5) 12 months. Jarvis Engineering Co., Boston, (1) both, $81,214; (2) $31,266; (3) $39,064; (4) both, $27,264; all buildings, $177,700; (5) 12 months. Conners Bros., Lowell, Mass., (1) both, $103,000; (2) $38,000; (4) both, $25,000; all buildings complete, $199,000. Thos. W. Rogers, Washington, (1) both, $77,476; (2) $32,283; (3) both, $2,498; (4) both, $22,480. S. H. Miller & Reed, Ogdensburg, N. Y., (1) both, $33,218; (2) $27,219; (3) both, $35,252; (4) two, $23,900; all buildings, $152,798; (5) 6 and 10 months. Chas. King & Co., Boston, (1) $37,600; (2) $20,000; (3) $16,627; (4) $11,500; (5) 10 months. For heating, gas piping and plumbing the following submitted bids: W. A. Tobin, Syracuse, N. Y.; Ed. Joy, Syracuse; G. S. Blodgett Co., Burlington; T. E. Costello, Plattsburg; C. A. Calhoun & Son, Middleburg, Vt.; W. H. Buckley & Co., Burlington; Huey Bros., Boston; Walworth Construction & Supply Co., Boston; Barr & Creelman, Rochester, N. Y.; Harris & Alger, Camden, N. J.; James Wilkinson & Co., Boston.

BOSTON, MASS.—An $800,000 custom house and a $600,000 appraiser's stores building will probably be built.

BROOKFIELD, MASS.—The plans for the town hall will be presented to the people in April for final approval. G. H. Clemence, Arch., 405 Main St., Worcester.

WOONSOCKET, R. I.—F. H. Mills writes us that $8,000 has been appropriated for site for police station.

BROOKLYN, N. Y.—The new municipal and court building will cost $1,000,000. An appropriation of $32,000 was made for competition among architects to draw plans for the building. Three interior baths will be built costing $270,000.

BUFFALO, N. Y.—Between $60,000 and $70,000 will be spent for a nurses' building at the Almshouse.

BUFFALO, N. Y.—The armory committee will shortly select site for new armory.

GREENPOINT, N. Y.—A $70,000 building will be erected by the New York & New Jersey Telephone Co. at Guernsey St.

LITTLE VALLEY, N. Y.—The question of moving the county seat to Salamanca is being discussed. The cost would be between $75,000 and $90,000.

NEW YORK, N. Y.—A $600,000 building will be erected on the old Macy store site. The front will be brick, limestone and granite. Cody, Bergh & Lee, Archs., 6 West 22d St.

NEW YORK, N. Y.—The Erie R. R. Co. will erect a station at the ferry landing at Chambers St., costing between $190,000 and $200,000.

NEW YORK, N. Y.—The New York Central R. R. Co. has offered sites for the new post office.——The sum of $600,000 will be spent on rebuilding the 71st Regiment Armory.——The Colonial Bank will erect new building at Columbus Ave. and 81st St.——Bills authorizing expenditures aggregating $1,050,000 for new hospital and improvements will be presented to the legislature.

NEW YORK, N. Y.—Bids are asked by department docks and ferries until March 13 for erecting recreation building. F. McDougall Hawkes, Comr. Docks.——The $2,000,000 post office appropriation has not passed. It will be a year before ground can be broken.

NEW YORK, N. Y.—Plans have been filed by H. Lamb, 11 Maiden Lane, for a 15-story hotel at 38-40 West 33d St., for D. A. Loring, 1270 Broadway, to cost $300,000; by C. P. Hoppe, Arch., 55 Duane St., for a 6-story brick warehouse, 49 × 49 ft., for Trinity Church Corporation, to cost $40,000; by C. H. Caldwell, Arch., 160 Fifth Ave., for 2-story brick building, 100 × 240 ft., at 140th St., for R. Baker & Co., 97 East Houston St., to cost $50,000; for M. A. Chisolm, College Point, and the Rhinelander Real Estate Co., for a 10-story department store at Sixth Ave. and 13th and 14th Sts., to cost $600,000. T. J. Oakley Rhinelander, Secy.; by Sass & Smallheiser, Archs., 23 Park Row, for a 6-story brick tenement, at 55-57 Forsyth St., for Mishkind & Feinberg, 320 Broadway, to cost $45,000; by Bernstein & Bernstein, Archs., 111 Broadway, for 6-story brick tenement, 50 × 67 ft., at Broome St., for R. Friedman, 180 East 114th St., to cost $55,000; by McKim, Mead & White, Archs., 160 Fifth Ave., for 2-story brick library, 115 × 73 × 40 ft., at 36th St. and Madison Ave., for J. P. Morgan, 219 Madison Ave., to cost $300,000; by Schwartz & Gross, Archs., 160 Fifth Ave., for 6-story brick tenement, at 111th St., for Gunn & Grant, 950 Amsterdam Ave., for $175,000.

SYRACUSE, N. Y.—A $150,000 armory is being considered.

SYRACUSE, N. Y.—A. Russell, Arch., 321 The Bastable, is finishing the court house plans and bids will be asked shortly.

UTICA, N. Y.—F. T. Proctor writes us that the county court house will be four stories, 150 × 100 ft., constructed of stone, terra cotta and brick and cost from $350,000 to $500,000. O. W. Cutter, Arch., Boston, Mass.

YONKERS, N. Y.—The Union Ry. Co. will erect a $60,000 brick car barn, 220 × 29 ft., with capacity of 250 cars.

CAMDEN, N. J.—Plans will be chosen soon for the proposed $600,000 court house.

NEWARK, N. J.—The new $125,000 armory will be built on Roseville Ave.

TRENTON, N. J.—Assemblyman H. D. Leavitt introduced a bill appropriating $300,000 for a new court house.

BLOOMSBURG, PA.—A science hall costing $70,000 is contemplated by the Bloomsburg State Normal School.

CHESTER, PA.—The Pennsylvania R. R. Co. will erect a $135,000 station.

CLARK'S SUMMIT, PA.—C. Schroeder, Connell Bldg., Scranton, Pa., received the contract for the $180,000 asylum buildings. They will be of brick and fireproof.

DANVILLE, PA.—The state hospital for insane has asked for $200,000 for an infirmary building and sewage-disposal plant.

NEW CASTLE, PA.—The Pennsylvania R. R. Co. will build a $500,000 station.

PHILADELPHIA, PA.—Bids are asked until March 5 for constructing a 5-story steel and brick office building at 18 South Broad St., for the Biddle estate. O. C. Wolf, Arch., 1025 Arch St.——Cramp & Co., 1421 Filbert St., has received the contract for a 15-story addition to the West End Trust Co.'s office building. Stone, brick and steel will be used; building will be fireproof and cost $125,000.——H. Trumbauer, Arch., Land Title Bldg., is preparing plans for a fireproof 12-story steel addition to the St. James Apartment House, 13th and Walnut Sts.——W. J. Smith, 1823 South Fifth St., received the contract for the 3-story brick and stone school, 148 × 60 ft., at Clearfield and Pope Sts., costing $80,883.

PITTSBURG, PA.—The Joseph Horne Co. will reconstruct the Home office building at a cost of $50,000. It is expected 2,000 sq. ft. of space will be added.

PITTSBURG, PA.—Bids are being received for an $80,000 warehouse for Shanahan Transfer Co. Building will be 109 × 120 ft. and have freight elevators, gas and electric light. F. C. Sauer, Arch., Hamilton Bldg.

PITTSBURG, PA.—J. Ramsay, Pres. Wabash R. R., has approved the plans for the $1,000,000 station. A. Fuller, New York, N. Y., has the contract.——D. L. Clark will erect a $100,000 building, 12 stories high, on Fifth Ave., near Huey St.

STATE COLLEGE, PA.—S. Davis, Arch., 907 Walnut St., Philadelphia, is preparing plans for a Carnegie Library for the Pennsylvania State College, at a cost of $100,000.

WILKESBARRE, PA.—Plans are being prepared for a 12-story office building. The site cost $150,000.

WILLIAMSPORT, PA.—P. Reitmeyer will prepare plans for an addition to the county court house.

BALTIMORE, MD.—Plans are being completed by Baldwin & Pennington, Archs., 44 South St., for the $75,000 addition to the Fidelity Bldg at Charles and Lexington Sts

BALTIMORE, MD.—Owens & Sisco, Archs., Continental Trust Bldg., are preparing plans for a 5-story brick warehouse, 30 × 120 ft., at 9-11 North Gay St., for E. B. Hunting.——Bids are being received by J. E. Sperry, Herald Bldg., for a stone and steel bank building at Saratoga and Howard Sts., for the President Savings Bank. Cost estimated at $150,000.——Plans are being prepared by A. Mason, Arch., 746 West Baltimore St., for a stone and brick synagogue for the Ohet Shalom Hebrew Congregation, costing $100,000.——Plans are being prepared by J. E. Lafferty, Builders' Exchange, for a 4-story brick and stone apartment house, 90 × 100 ft., at Charles and Lafayette Sts., costing $50,000.——Wells Bros. Co., Inc., Stephen Girard Bldg., Philadelpha, has received the contract for the 4-story brick, stone and steel Hotel Mullen at Baltimore and Liberty Sts., for $500,000.

CUMBERLAND, MD.—T. E. Kennedy, Arch., 113 North Charles St., Baltimore, is taking bids for the 3-story brick and stone parochial hall for St. Patrick's R. C. Church, which will be 60 × 130 ft.

SALISBURY, MD.—J. C. Gott, 218 North Charles St., Baltimore, has started plans for a 4-story brick department store, 80 × 200 ft., for R. E. Powell & Co., costing $50,000.

BALTIMORE, MD.—The new building of St. Austin's College will probably be 254 × 800 ft. and cost $150,000. It will adjoin the Catholic University at Brooklandwood.

WASHINGTON, D. C.—Albert Cary will build a 12-story hotel, 70 × 159 ft., on E St., between 13th and 14th Sts. N. W. C. A. Didden is the architect.——Congress has increased the cost of the municipal building from $1,500,000 to $2,000,000.——An appropriation of $750,000 has been made for purchasing a site for an office building to be used by members of the House, with authority to construct the building at a cost of $3,100,000. The Superintendent of the Capitol has also been instructed to prepare plans for a similar building, to be used by members of the Senate.——The sum of $100,000 has been given for completing the additions to Providence Hospital.

WASHINGTON, D. C.—L. H. Reichelderfer, Supt., writes us that if the $100,000 appropriation is made contracts for engine room and boilers, kitchen, laundry, electric elevator and operating room for the Garfield Memorial Hospital, will be let next summer. A. P. Clark, Arch., 602 F St.——Wood, Down & Denning, Archs., 808 17th St., will prepare plans for Masonic Temple. Brick, stone and steel, fireproof, seven stories, 52 × 132 × 110 × 144 ft., and cost $300,000.

RICHMOND, VA.—An increase of $100,000 in the appropriation for the improvement of the capitol may be made. Noland & Baskerville and Frye & Chesterman, Archs., Chn. Com. Bldg.

WHEELING, W. VA.—Stuart Westenhaver, Martinsburg, has received the $90,000 contract for building the M. E. Church parsonage.

ALBANY, GA.—Lockwood Bros., Archs., will prepare the plans for the new $40,000 court house.

ATLANTA, GA.—Bruce & Morgan, Archs., Prudential Bldg., will prepare plans for J. W. English for the 14-story steel building at Peachtree and Marietta Sts., to cost $450,000. Work will start within two weeks.——The new Atlanta Terminal Co.'s station will be located at Mitchell and Madison Sts., and cost $850,000. The building will be 230 × 400 ft., and the train shed 200 × 500 ft. A $100,000 freight depot will be built in connection with the station.——An addition will be built to the Piedmont Hotel, which will cost $300,000.

ROME, GA.—A $134,104 annex to the post office has been recommended.

SAVANNAH, GA.—The council has appropriated $500 to secure plans and specifications for the new city hall. The building committee consists of Mayor Myers, Aldermen Thomas and Davant.

SUMMERVILLE, GA.—S. J. Sexton will erect a $100,000 residence.

JACKSONVILLE, FLA.—Plans have been prepared by R. Holmes, Arch., for a 5-story building for the Consolidated Naval Stores Co., at Bay St. Bids will be called for shortly. Limestone will be used. Two elevators will be installed.——An appropriation of $95,000 has been made for enlarging the government building. This amount will probably be increased.

MONTGOMERY, ALA.—The trustees of the Peabody fund have decided to erect a $2,000,000 teachers' college some place in the south.——The sum of $150,000 has been appropriated for improvement to the state capitol. Also $50,000 for new schools.

NEW ORLEANS, LA.—Bids are asked by New Orleans Cold Storage & Warehouse Co. until March 9 for constructing superstructure of warehouse. Favrot & Lwandais, Archs., Abraham Bldg.

VICKSBURG, MISS.—We are informed that it will be several months before the First National Bank erects its building.

CHATTANOOGA, TENN.—Plans are being prepared by Architect Downing, Atlanta, for the Carnegie Library.

GREENVILLE, TENN.—The site for the Federal court building has been found satisfactory. The sum of $137,500 has been appropriated.

KNOXVILLE, TENN.—The Knoxvlle, La Follette & Jellico Ry. will spend $132,000 on its new depot.

LOUISVILLE, KY.—W. H. Netherland will remodel the building at 416-418 West Main St. at a cost of $50,000 to $75,000.

PADUCAH, KY.—Plans will soon be completed for the theatre to be erected by J. L. Friedman, G. C. Wallace and J. English. The seating capacity will be 1,200. W. Brainerd, Arch.

CHILLICOTHE, O.—Bids are asked until March 20 for constructing a Masonic Temple. Address D. H. Roche.

CINCINNATI, O.—The principal losers at the recent fire were the following: American Book Co., Pike Building, Harrison Building, Robt. Clark & Co., Duhme Bros., Richter & Phillips, Joffee & Strauss.——Plans have been prepared by Bolt & Taylor, Archs., Fifth and Walnut Sts., for a 6-story building for L. B. Gibson. The building will be of mill construction and steel girders, elevators and electricity.——Bids are asked by the board of trustees of the Athens State Hospital until March 19 for additions to dining-rooms. F. L. Packard, Arch., Hayden Bldg., Columbus, O.——The Windisch-Muhlhauser Brewing Co. will erect an 8-story building at Seventh and College Sts.

CINCINNATI, O.—The Sun Mutual Insurance Co. has accepted plans for a $50,000 structure at 13th and Bremen Sts.

CLEVELAND, O.—A $7,000,000 court house is being discussed.

HAMILTON, O.—The new Federal building will be erected at Third and Ludlow Sts. at a cost of from $100,000 to $150,000.

SPRINGFIELD, O.—W. J. Frasser writes that the Y. M. C. A. building will be 81 × 53 × 198 ft., of brick, and cost $50,000. Contracts are to be let this summer.

TOLEDO, O.—Bids are asked until March 12 for constructing 5-story Masonic Temple, 100 × 110 ft., to cost $125,000. H. W. Wachter, 701 Nasby.

BEDFORD, IND.—Bids will be asked when plans are completed for the post office building.

GREENCASTLE, IND.—J. McD. Hays writes that the 2-story stone court house will be 218 × 218 ft., and cost $150,000. Plans will be advertised for.

INDIANAPOLIS, IND.—Frommeyer & Co. has purchased a site on South Meridian St., where they will erect a 5-story building.

INDIANAPOLIS, IND.—A bill has been introduced in the legislature by Representative Muir appropriating $150,000 for the establishment of the Indiana Industrial prison

INDIANAPOLIS, IND.—The sum of $400,000 has been appropriated for new buildings.

RICHMOND, IND.—The sum of $300,000 will be expended on public buildings. Address City Clerk.

SHELBYVILLE, IND.—The contract has been awarded to Feaster & Davis for $35,244 for erecting the new city hall building.

GRAND RAPIDS, MICH.—The council has decided that no more than $100,000 be spent on improvements to the city hall. A new heating plant, elevators and ventilating system will be installed. Donaldson & Meier, Archs., 367 Bates Ave.

MUSKEGON, MICH.—Bids are asked until April 1 for constructing Hackley Hospital buildings. H. Sawyer, Secy.

CHICAGO, ILL.—The Chicago Dock & Canal Co. will erect a 4-story brick and stone warehouse at Nos. 505-525 North Water St., 166 × 188 ft., at a cost of $100,000.——Mary Ryerson will erect a 6-story building, 40 × 166 ft., at Nos. 551 and 553 Wabash Ave., at a cost of $70,000.

CHICAGO, ILL.—Plans are ready for the Lewis Institute addition, which will cost $100,000, and be 121 × 66 ft., of brick, bedford stone and terra cotta.

MILWAUKEE, WIS.—Henry Herman will erect a business block at Nos. 264-6 West Water St., at a cost of $100,000.

MILWAUKEE, WIS.—H. Herman will erect a $100,000 building at 264-66 West Water St.

SEYMOUR, WIS.—Bids are asked until March 16 for constructing school building. F. R. Dittmer, Clk.

AMES, IA.—The main building of the Iowa State College will be built of Bedford stone, four stories, fireproof and cost about $250,000. Bids will be taken shortly. Proudfoot & Bird, Archs., Crocker Bldg, Des Moines, Ia.

CARTHAGE, IA.—Plans for a new $75,200 court house have been adopted.

CENTERVILLE, IA.—Smith & Gage, Archs., Des Moines, advises us that the court house contract has been let to Peatman & Co. for $74,400.

CENTERVILLE, IA.—The contract for the new county court house has been let for $69,600. Bedford stone will be used.

STILLWATER, MINN.—The house committee has decided to recommend the bill by Representative O. B. Soule, Washington, appropriating $84,000 for new buildings at the state prison.

OMAHA, NEB.—Beebe & Runyan Co. will erect an 8-story warehouse of pressed brick at Ninth and Dodge Sts. J. Latenser, Arch., Bee Bldg.

FARGO, N. D.—The sum of $80,000 has been appropriated for an addition to the public building.

GRAND FORKS, N. D.—Bids are asked until April 1 for constructing a school. J. B. De Remer, Herald Bldg.

KANSAS CITY, MO.—L. N. Leslie writes us that his 8-story, 64 × 55-ft. building will cost $70,000. The contract for boiler has been let to Sirewright & Smith. M. O'Connal, Arch., 501 Ridge Bldg.

ST. LOUIS, MO.—I. T. Cook, Mgr. Chemical Bldg., is preparing plans for a hotel to cost $500,000.

ST. LOUIS, MO.—An appropriation of $700,000 has been made for new government buildings.

SPRINGFIELD, MO.—Bids are asked until March 14 for erecting St. Paul's M. E. Church. Reed & Heckenlively, Archs., 302 College.

ST. PAUL, MINN.—J. H. Wheeler, Minnesota Bldg., writes us that contracts will be let in about six weeks for St. Joseph's Female Academy administration building, which will be four stories, 148½ × 80 ft., and cost $75,000. Brick and stone will be used. Plans not yet prepared for dining room building.

CORSICANA, TEX.—The plans of J. E. Flanders, Dallas, for the new court house have been accepted. The building will be of Burnet granite with Pecos red sandstone trimmings, and cost about $100,000.

HOUSTON, TEX.—The Southern Pacific Co. will construct its 7-story office building on the old Hutchins House site soon. W. Hood is Ch. Engr., San Francisco, Cal.

COLORADO SPRINGS, COLO.—The sum of $75,000 may be spent on improvements to Pikes Peak club house.

DENVER, COLO.—A $1,000,000 Presbyterian college will be erected.——A sanitarium for consumptive actors will probably be built at a cost of $150,000.

SEATTLE, WASH.—Hastie & Dougan, Spokane, have, it is stated, the Stander Hotel contract. The building will be 120 × 120 ft. and cost $112,000.

PORTLAND, ORE.—Bids are asked until March 21 for constructing a brick court house. Address Architect Burgraff, Albany, Ore.——Reports state that W. D. Tyler is interested in a $100,000 hotel to be built here.

BERKELEY, CAL.—Andrew Carnegie will donate $40,000 for a library providing $4,000 is raised a year to maintain the same.

LOS ANGELES, CAL.—The county hospital will erect power house and three wards at a cost of $125,000.

OAKLAND, CAL.—Reports state that plans have been perfected for the 11-story fireproof office building at Broadway and 13th St. by the Union Savings Bank, to cost $500,000.

Information concerning contracts to be let or of supplies to be purchased, and corrections of errors and omissions in published items, are invited.

SACRAMENTO, CAL.—Assemblyman Snyder introduced a bill appropriating $50,000 for a girl's reform school.

SULPHUR SPRINGS, CAL.—A $150,000 sanitarium will probably be built.

LEWISTON, IDAHO.—A site has been located by the directors of the Masonic Temple and Opera House Association for the proposed $50,000 building. Plans will now be prepared.

FORT DOUGLAS, UTAH.—Building appropriations will run up to $175,000. Present barracks to be torn down.

CLINTON, ONT.—Bids are asked until March 11 for constructing hot-water system in the post office. Fred. Gelinas, Secy. Pub. Wks., Ottawa.

BONDS.—Jefferson City, Mo., will issue $80,000 in bonds for school building.——St. Joseph, Mo., will vote upon a $300,000 bond issue March 14 for school buildings.——Seattle, Wash., is discussing a $400,000 bond issue for school buildings.——An issue has been approved for New York, N. Y.——Yonkers, N. Y., will issue $250,000 building bonds.——South Bend, Ind., has received authority to issue bonds.

WATER SUPPLY AND IRRIGATION.

(For foreign water supply and irrigation see under "Foreign Contract and Export News.")

GARDINER, ME.—Legislative leave is asked for purchase by city of local water-works.

ENFIELD, N. H.—Act passed for works.

HUDSON, N. H.—Town can establish works.

KEENE, N. H.—Council passed bill providing $3,200 for extension main in Eastern Ave.

TILTON, N. H.—State appropriation asked for water system at Soldiers' Home.

WOLFBORO, N. H.—Works favored.

ABINGTON, MASS.—Abington and Rockland are asking leave to take Big Sandy Pond for a water supply.

AMHERST, MASS.—Town may vote at town meeting on purchase, at future time, of works of Amherst Water Co.

BOSTON, MASS.—Bids are asked by the water commissioner, City Hall, until March 7, for furnishing 2,900 tons cast-iron water pipes; also 1,350,000 lbs. iron castings under one contract, and 58,000 lbs. composition castings under another contract.

BOSTON, MASS.—Bids are asked by the superintendent of streets until March 9 for engine house at pumping station, Dorchester. James Mulcahy, Arch., 683 Atlantic Ave.

FRANKLIN, MASS.—Town may vote on municipal works.

MANSFIELD, MASS.—The water district, D. S. Spaulding, Comr., wishes to issue $10,000 of bonds for extensions.

MILTON, MASS.—Town will vote on seeking entrance to Metropolitan water system.

PITTSFIELD, MASS.—A new system of water piping is to be begun early this spring in Morningside.

LEXINGTON, MASS.—Reports state that bids are asked until March 15 for furnishing and delivering 9,000 ft. 12-in. cast-iron water pipe. E. S. Locke, Water Comr.

QUINCY, MASS.—Council voted $30,000 for mains.

MELROSE, MASS.—The sum of $40,000 has been voted for reconstructing water division and replacing old cement pipes with iron mains.

ANSONIA, CONN.—It is stated that the Ansonia Water Co. expects to lay a large quantity of new mains this spring and summer.

RIDGEFIELD, CONN.—The works of the Ridgefield Water Supply Co. will, it is said, be improved by the erection of a large tank, sinking of more wells and instalment of new pumps and engine. H. B. Anderson is one of the owners.

BUFFALO, N. Y.—We are informed that the proposed extension of the works will consist of the installation and erection complete of ten boilers, mechanical stokers for the same, and induced-draft equipment, and coal and ash handling equipment for 16 boilers. Also new steam main for 16 boilers and nine engines. The cost will be about $75,000, and bids will be opened March 12. Jas. B. Cloudsley, Ch. Engr. pumping station is Des. Engr., and Henry L. Lyon, Deputy Water Comr., is in charge of the work.

JAMESTOWN, N. Y.—City will take over local water plant April 1 and thereafter the system will be operated by the mayor and a commission of six. The sum of $000,000 is the purchase price.

LOCKPORT, N. Y.—The mayor may recommend that the works be improved at a cost of about $35,000.

NORTH TONAWANDA, N. Y.—A. P. Smith, Cy. Engr., writes us that estimates, plans and specifications for the proposed force mains are now being prepared. The city will, however, first have to acquire a right of way, which will take some time.

OWEGO, N. Y.—Water department has approved estimates of cost made by Superintendent Bennett of the construction of a system for taking water from Lake Ontario.

ROCHESTER, N. Y.—A general metering of the city is said to be under advisement by the city engineer.

SENECA FALLS, N. Y.—Reports state that the Freck & Johnson Water Co. are to sue the village to determine the right of the latter to prevent their construction of works. A franchise was granted them by a former board.

ITHACA, N. Y.—The city has voted in favor of municipal works and a committee has been appointed to see about the matter of a temporary artesian supply.

HOBOKEN, N. J.—The matter of a filtration system is under consideration, the water board having requested the Hackensack Water Co. to make a proposition for filtering the city water.

DU BOIS, PA.—It has been voted to complete the new water system to Anderson Creek.

MILLVALE, PA.—The borough has purchased the plant of the Bennett Water Co. for $68,500. S. B. W. Pfeschner is Burgess.

PHILADELPHIA, PA.—We are informed that the following bids were received Feb. 18 for various improvements to the water-works; Harry W. Quick, Acting Dir. Pub. Wks.: Lardner's Point pipe distribution system, (1) bid if all cast-iron pipe is used; (2) 60-in. steel-riveted pipe, smaller pipes cast iron: D. J. McNichol, (1) $2,384,237, (2) $2,198,075, 16 months; J. H. Louchheim, (1) $2,525,270, (2) $2,374,528, 24 months; Ryan & Kelly, (1) $2,694,777, (2) $2,531,554, 25 months. Filtering materials and underdrains for the Belmont filters: D. J. McNichol, (Plan A) $346,877, (B) $350,563, (C) $361,398, 300 working days; Ryan & Kelly, (A) $356,300, (B) $360,300, (C) $368,300, 12 months. Filtering materials and underdrains for Torresdale filters: D. J. McNichol (Plan A) $1,016,034, (B) $1,025,348, (C) $1,027,878, 500 working days; Ryan & Kelly, (A) $1,100,280, (B) $1,100,280, (C) $1,100,280, two years. D. J. McNichol was the only bidder for the foundations and superstructure of Lower Roxborough preliminary filters, his bids being $49,457 for rolled embankment and $56,200 for concrete and steel construction. All the above bids were submitted by Philadelphia contractors.

SHINGLE HOUSE, PA.—This place has voted bonds for building a water system.

WILMINGTON, DEL.—The water commissioners, Alfred Betts, Pres., are to ask legislative leave to borrow $200,000 for the construction of new water plant on Thomas T. Weldin farm.

RIDGLELY, MD.—Chas. S. York, Hydr. Engr., Baltimore, Md., has been engaged to make plans and estimate of cost of system of water-works for this town.

CLINTON, S. C.—Works and electric light plant are talked of.

LANCASTER, S. C.—W. B. Moore, C. E., Yorkville, S. C., has reported that a system of works could be installed here for about $18,000.

GEORGETOWN, S. C.—We are informed that owing to the serious opposition that has arisen to any work of excavation in the city during the summer months, the letting of the contracts for water-works and sewers has been postponed from March 18 until next September. J. L. Ludlow, Winston, S. C., Engr.; J. B. Steele, Chn. Pub. Wks. Comrs.

ATLANTA, GA.—Reports state that there is urgent need for the improvement of the city works by building a new reservoir, purchase of a new pump, new mains and the like. Park Woodward is Supt.

SAVANNAH, GA.—The contract for pipe for Abercorn St. extension has been let to the United States Cast-Iron Pipe & Foundry Co., Chattangoos, Tenn., for about $7,500, and the contract for fittings to John O'Rourke & Sons for about $400.

COLLINS, MISS.—Works proposed by company.

NEW ORLEANS, LA.—An irrigation company has been formed with $6,000,000 capital to operate in St. Landry Parish, Louisiana. A canal 250 ft. wide is to be built for irrigating 500,000 acres of land. Congressman H. Bird Castle, Marietta, Pa., is Pres.

PIKEVILLE, KY.—Franchise for works and sewerage granted W. B. Cox.

BAINBRIDGE, O.—N. H. High, Village Clk., writes us that T. C. Brooks & Son, general contractors, Jackson, Mich., were the lowest bidders, at $14,870, for completing the water-works plant. Bids for this work were received Feb. 24.

CINCINNATI, O.—The contract for erecting the new western pumping station has been let to the United States Construction Co. for $379,635. Plans for the filtration plant for the new works are said to be about completed by G. Bouscaren, Ch. Engr. These are reported to provide for a mechanical filtration system, to be installed at a cost of more than $1,000,000.

LANCASTER, O.—Bids are asked until March 25 for furnishing cast-iron pipe and special castings, building pump and power house, drilling eight 6-in. wells and furnishing and installing gas engine and power pump. Geo. Cunningham, Secy. W.-W. Trus.

LIMA, O.—Reports state that $150,000 is to be spent this summer in water-works improvements.

STRUTHERS, O.—A franchise is to be asked, according to reports, for water-works and sewerage.

WOOSTER, O.—Efforts are being made to obtain a desirable water supply for the city. Geo. Boegner is Supt. W.-W.

CLINTON, IND.—Reports state that plans and specifications are to be made for works.

GRAND RAPIDS, MICH.—About ten miles water main extensions are said to be under consideration. It is also said that $4,000 is to be spent for new boilers at pumping station. Barney Meyer, Gen. Supt., has charge of the work.

ALTON, ILL.—The receiver of the Alton Water-Works has been notified by the city to extend the service and place new hydrants.

BERWYN, ILL.—Installation of meters is discussed.

CARLINVILLE, ILL.—Reports state that the city may declare the franchise of the Carlinville Water Co. void.

NAPERVILLE, ILL.—The council has been petitioned to submit to public vote on April 21 the question whether the city shall construct and operate a municipal system of water-works for domestic service and fire protection.

NORMAL, ILL.—We are informed that no contracts were to be let for metering water supply until after the election which was to be held March 2. A. T. Hall, Supt. W.-W.

BOONE, IA.—Bids are asked until March 13 for about 2,550 ft. 6-in. c.-i. pipe, 33 lbs. per ft.; seven double nozzle Eddy or Ludlow hydrants, and two 6-in. Eddy gate valves. Chas. E. Russell, Cy. Engr.; Jesse L. Hull, Cy. Clerk.

BURT, IA.—City will vote on installing works.

CLARION, IA.—Complete works are to be put in here this summer, according to reports.

DEDHAM, IA.—Franchise for works granted Baker Caton.

FONTANELLE, IA.—Geo. Rodgers writes us that the matter of works has not yet been before the council.

SIOUX CITY, IA.—It is stated that reports regarding the proposed improvement of the city water system will be ready by April 1. J. M. Lewis is Cy. Engr.

LAKE PARK, MINN.—Bids for constructing water-works for this place are asked until March 16. Work is to consist of steel tower and tank, furnishing and laying pipe, specials, hydrants and gates, brick pumping station, gasoline engines and pumps. Iowa Engineering Co., Clinton, Ia., Engrs.; W. O. Bergerson, Mayor.

WILMONT, MINN.—W. Corbett, Pres., writes us that they cannot tell when contracts will be called for constructing water-works. Press reports state that $8,000 of bonds was voted for the work.

GARDEN CITY, KAN.—C. A. Schneider writes us that an irrigation district, covering about 10,000 acres, is being formed, and that contracts for pumping plant cannot be let until this is done and bonds voted. It will probably be 90 days before this is done.

McCRACKEN, KAN.—Works being agitated.

CHEYENNE, WYO.—Reports state that work is to be begun early this spring on a reservoir and canal to be built in the Oregon Basin for irrigating about 200,000 acres of land. The work will cost between $300,000 and $500,000. G. A. Guernsey, Pres. State Senate, is said to be interested.

GREAT FALLS, MONT.—Bids are asked until March 9 for furnishing 18,120 ft. (616,080 lbs.) 6-in. and 4,000 ft. (192,000 lbs.) 8-in. cast-iron pipe; also 9,800 lbs. special castings. W. H. Smith, Cy. Clk.

CHINOOK, MONT.—We are informed that the probable date for bids for water-works here will be April 1. The estimated cost of the works is $24,000 and Loseth & Wolff, First National Bank Bldg., St. Paul, Minn., are Engrs.

DILLON, MONT.—Reports state that bids are asked until March 14 for constructing $60,000 water-works system. C. F. Kelsey, Salt Lake City, Utah, Engr.

CAMERON, MO.—Council favors erecting works.

SPRINGFIELD, MO.—The local water company has asked for a 10-year contract and a 20-year continuation of their franchise. In return they offer to make many improvements to their system.

WINDSOR, MO.—We are informed that estimates are being made for water-works, and that the matter will be voted on April 1. Burns & McDonnell, Kansas City, Mo., are Des. Engrs.; F. C. Livingston, Member Council; C. F. Davis, Mayor.

KANSAS CITY, MO.—An appropriation of $80,000 for building part of the new pipe line from the Quindaro water-works station has passed the council.

ASHDOWN, ARK.—Reports state that works are to be constructed by the town.

GRAND MARAIS, MICH.—Reports state that the village works and light station were recently destroyed by fire.

CHETEK, WIS.—Works voted for.

WACO, TEX.—H. W. Hubby, Water Comr., writes us that Waco has applied to the state legislature for an amendment to the city charter, enabling her to bond for water and light plant. Other questions in abeyance pending this.

MARSHALL, TEX.—Bids are asked until March 18 for a steel water tower to be erected in this city, as stated in our advertising columns. T. Howard Barnes, Jacksonville, Tex., Engr.; T. D. Sedberry, Secy.

EL RENO, OKLA. TER.—Municipal ownership of the water-works is reported as favored by the mayor.

STROUD, OKLA.—The Stroud Commercial Club is discussing water and electric light proposition.

HOLDENVILLE, IND. TER.—We are informed that the following bids were received Feb. 25 for constructing water-works; Burns & McDonnell, Postal Telegraph Bldg., Kansas City, Mo., Engrs.: Work, including steel tower and tank—W. W. Cook & Son, Junction City, Kan. (using Chicago Bridge & Iron Works tower and tank); Dunnegan & Sykes, Muskogee, Ind. Ter. (Ludlow hydrants); American Light & Water Co., Indianapolis, Ind. (Eddy valves); O. J. Gorman, Dallas, Tex. (Gardner governor pumps). Without steel tower and tank—General Municipal Construction Co., Dallas, Tex., $22,985; James Cotter, Kansas City, Mo., $23,374; Allan Black Co., St. Paul, Minn., $24,350; C. T. Bartlett, Evanston, Ill., $24,650; Spradling & James, Farmington, Mo., $29,480. Steel tower and tank—Dunnegan & Sykes, Muskogee, Ind. Ter., $3,890; Des Moines Bridge & Iron Works, Des Moines, Ia., $3,945; O. T. Gorman, Dallas, Tex., $3,990; Midland Bridge Co., Kansas City, Mo., $4,131. The contract was let to W. W. Cook & Son.

WHATCOM, WASH.—Local reports state that the Ellsworth Water Association, T. F. Moseley, Pres., will make improvements to their works.

TACOMA, WASH.—A special water committee has made report recommending the improvement of the works. The general plan adopted provides the installation of a pumping station in South Tacoma, the laying of a large main from South Tacoma, the construction of a new 4,000,000-gallon reservoir in the South End, the construction of a new feed main through the city, and providing for the revision of the high, low and middle services. The estimated cost of the work is $112,880. N. L. Taylor is Cy. Engr.

SEATTLE, WASH.—Bids for water mains were received here as follows: 19th Ave. main, Stirrat & Goetz, $8,206; Bell & Price, $7,937; F. McLellan, $7,814; Markey, $7,415; J. Frank, $7,964. Dexter Ave. main, James Markey, wood stave, $10,605, machine wound, $10,336; F. McLellan, wood stave, $10,924, machine wound, $9,432; Bell & Price, wood stave, $10,243; Stirrat & Goetz, wood stave, $13,273, machine wound, $10,563. For the 22d Ave. main F. McLellan was low bidder at the following prices: Cast-iron pipe, $32,893; all wood, $21,105; wood and iron, $24,054.

RAINIER, ORE.—Better water-works are agitated.

FULLERTON, CAL.—Work was to have been commenced early this month on constructing a mile of the Cajon Canal of the Anaheim Union Water Co. The company may construct other tunnels.

SAN PEDRO, CAL.—A 35-year water contract has been let to the Seaside Water Co. and work on the pipe lines, reservoirs and distributing systems will begin at once.

SAN BERNARDINA, CAL.—Lagare Allen, Cy. Clk., writes us that no action has been taken toward letting contracts for proposed extension of the city works. The bonds are to be sold about April 1. E. A. Rasor is Des. Engr.

SPANISH FORK, UTAH.—City works discussed.

SALT LAKE CITY, UTAH.—The contract for the first division, including the dam and two miles on each canal, has been let by the Twin Falls Land & Water Co. to Faris & Kesl, Nampa, Idaho. The work includes the construction of three dams, headworks, outlet tunnel and two miles of heavy rock work. The contract involves about $500,000. The contract for division two and three was let to the Springville Construction Co. This work also involves about $500,000.

ALEXANDRIA BAY, ONT.—Works to cost $60,000 are to be built here, according to reports.

HAMILTON, ONT.—The fire and water committee is asking for $29,000 for water-works construction.

SARNIA, ONT.—Information is being obtained regarding proposed improvements of city works.

STRATFORD, ONT.—This place was to vote March 4 on the municipalization of its water-works system.

BONDS.—Mansfield, Mass., may issue $10,000 water main extension bonds. See item elsewhere in this column.——Salem, Mass., seeks leave to issue $50,000 of water-works improvement bonds.——F. W. M. Heerwagen, Cy. Comptroller, Buffalo, N. Y., is asking bids until March 7 for purchase of $75,000 of water bonds.——Jamestown, N. Y., can issue $600,000 water-works purchase bonds.——New York, N. Y., proposes to issue $1,270,000 bonds for water supply and $50,000 bond for pumping water, Westchester Water Co.——Oneida, N. Y., will vote on about $25,000 of storage reservoir bonds. See item elsewhere in this column.——Du Bois, Pa., has voted to issue bonds for completing water system.——Millvale, Pa., will issue $75,000 bonds for purchase of water plant. See item elsewhere in this column.——Coatesville, Pa., has voted to issue $40,000 water and sewer bonds.——Troy, Pa., votes to borrow $25,000 for purchase of local water plant.——Wilmington, Del., seeks leave to borrow $200,000 for water-works construction. See item elsewhere in this column.——Lake Wilson, Minn., votes March 10 on $7,000 water bonds.——Cameron, Mo., proposes to vote on $60,000 of municipal

Information concerning contracts to be let or of supplies to be purchased, and corrections of errors and omissions in published items, are invited.

water plant bonds.——John H. Hamilton, Secy. W. W. Comrs., Mena, Ark., will receive bids until March 21 for $25,000 water-works bonds.——Oceanside, Cal., votes to issue $75,000 water extension and $10,000 wharf and pier extension bonds.——San Diego, Cal., may vote on issue of $200,000 water improvement bonds.——San Bernardino, Cal., will probably sell water extension bonds about April 1. Lagare Allen, Cy. Clk. See item elsewhere in this column.——Bartlett, Tex., has issued $6,000 water-works bonds.——Phoenix, Ariz., will probably vote soon on $300,000 of water-works purchase bonds.——Spanish Fork, Utah, may vote on issuing bonds for water-works.

NEW COMPANIES.—Ossipee Water & Electric Co., Ossipee, N. H., has been incorporated.——Mecklenburg Water, Light & Power Co., Mecklenburg, N. C., has applied for a charter.——Bay Ice, Electric Light & Water-Works Co., Bay St. Louis, Miss.; $25,000; Henry Widner, T. J. Braun, E. H. Hoffman.——Home Water Supply Co., Ottumwa, Ia.; $500,000; T. D. Foster, Samuel Mahon, W. B. Bonnifield.——Centennial Water-Works Co., Cheyenne, Wyo.; $250,000; organized to construct works at Centennial, a new town in Albany county.——Dayton Canal & Irrigation Co., Houston, Tex.; $500,000; Geo. L. Glass, F. A. Reichardt and H. B. Rice.——San Luis Canal Co., Mosca, Colo.; $30,000; N. C. Patton, Chas. M. Corlett, W. R. Goebel.——Yolo County Consolidated Water Co., Woodland, Cal.; $1,000,000; Joseph Craig, Lawrence D. Stephens, John L. Stephens.——Redbank Water Co., Visalia, Cal.; $20,000; W. W. Squire.

SEWERAGE.

AMHERST, MASS.—The sewer question is being discussed.

BRIDGEWATER, MASS.—F. H. Snow, Cy. Engr., Boston, has explained the proposed system to the Bridgewater Commercial Club.

CLINTON, MASS.—A proposition for a system will be presented to the council.

GLOUCESTER, MASS.—A sewerage system to cost about $350,000 is discussed. Councilman W. S. Friend is interested.

HUDSON, MASS.—D. W. Stratton, Cy. Clk., writes us that the committee's report with the engineer's estimates of a sewerage system has been submitted to the council.

MARBLEHEAD, MASS.—F. L. Fuller, Cy. Engr., Boston, writes us that he has prepared plans and estimates for a sewerage system.

SALEM, MASS.—Order adopted by council for a $750,000 system.

WESTERLY, R. I.—S. M. Gray, Engr., Providence, will report to council a new system.

NEW BRITAIN, CONN.—Bids are asked until March 24 for constructing 1,048 ft. of tunnel, 10,980 ft. of 24-in. sewer and 700 ft. of smaller size, as stated in our advertising columns. Address W. H. Cadwell, Cy. Engr.

ALBANY, N. Y.—Ordinance before council for pipe sewer in Liberty St. P. N. Bresler is Clk.

BROOKLYN, N. Y.—Bids are asked by the borough president, Room 15, Municipal Bldg., until March 11, for constructing 2,773 ft. of 12-30-in. brick and pipe sewer.

BUFFALO, N. Y.—Bids being received for 10-20-in. sewer in Kenmore Ave. Commission public works has plans.

NEW YORK, N. Y.—Bids are asked by the borough president, room 16, City Hall, until March 10, for constructing 2,421 ft. of 6-15-in. brick and pipe sewer and 6,825 cu. ft. rock excavating.

NEW BRIGHTON, N. Y.—F. S. Orholer, Asst. Engr., writes that the Osgood Ave. sewer has been authorized and bids will be taken in about a month.

PENN YAN, N. Y.—C. E. Hopkins, of the firm of Knight & Hopkins, Rome, is preparing the sewer plans.

CAMDEN, N. J.—A sewer will be constructed in Spruce St., Mt. Ephraim and Marlton Aves.

JERSEY CITY, N. J.—Chief Engineer Van Keuren has filed specifications for the Bay St. sewer. Also for improving Waynes St. and Courelison Ave.

MILLVILLE, N. J.—L. H. Hogate, Cy. Clk., writes that maps and plans have been accepted for sewers. No contracts awarded yet.

ERIE, PA.—B. E. Briggs, Cy. Engr., informs us that the following submitted bids on contracting 300 ft. of 40-in. and 840 ft. 36-in. brick and concrete sewer, advertised in Engineering News: Local bidders: V. D. Eichenlaub, Riblet & Blenner, Jno. M. Cormick & Son, Dennis O'Brien, Edward Driscoll, Mayer Bros., Jno. O. Hagan.

PHOENIXVILLE, PA.—Sewerage system proposed.

SHARPSVILLE, PA.—A system is being discussed. The Mercer St. system would require 11,000 ft. of 6 and 8-in. sewer, costing about $6,724, and the Main St. system 23,300 ft. of 6 to 12-in. pipe, at a cost of $15,762. G. B. Zahniser, Civil Engr.

WILMINGTON, DEL.—The date of opening bids on sewer materials has been postponed.

ANACOSTIA, D. C.—The following contracts for sewers have been recommended: A. Gleeson, Jefferson St., $1,484; M. F. Talty, Cathedral Ave., $2,468, and 15th St. at $3,404. These were the lowest bids.

NASHVILLE, TENN.—The sum of $58,000 has been appropriated for extending the Lick branch sewer and paving Cedar St. with granite.

CINCINNATI, O.—City Engineer Stanley will prepare plans for the Millcreek Valley sewer.

COLUMBUS, O.—J. Griggs, Cy. Engr., writes us that an ordinance has been prepared providing for the 1,438 ft. of 8-in. sewer in Greenlawn Ave. Cost is about $2,174.

DAYTON, O.—F. M. Turner, Cy. Engr., informs us that district No. 5 sewer will be constructed when passed by the council; cost, $22,300. There will be five miles of 8 to 18-in. sewer.

DELPHOS, O.—Riggs & Sherman have been awarded the $60,000 sewer contract.

SOUTH PARK, O.—A resolution has recently been passed for the construction of a sanitary sewer at a cost of $24,000.

YOUNGSTOWN, O.—Ordinance prepared for sewering Burke St. W. I. Davies, Clk. Council.

EVANSVILLE, IND.—A. Pfafflin, Cy. Engr., writes that nothing has been done to Kentucky Ave. sewer.

INDIANAPOLIS, IND.—City Engineer Nelson may invite outside bids for constructing sewers, as local bidders are too high.

CENTRALIA, ILL.—R. Rohl, mayor, writes us that the required number of signatures have been secured for the sewer system, which will be built when passed by the council. Pipe 6 to 20 ins. will be used.

CHICAGO, ILL.—Commissioner Blocki will increase the capacity of the pumping station to 75,000 cu. ft. at Lawrence Ave. intercepting sewer.

WABASH, IND.—J. Milty, Cy. Clk., writes that bids for sewers are laid over until March 9.

GALESBURG, ILL.—J. B. McCauley, Cy. Engr., writes us that 2,000 ft. of 15 to 20-in. sewer, with average cut of 10 ft. and costing $3,600, is contemplated. Also 13,000 ft. of brick paving; cost, $16,000.

ROCKFORD, ILL.—Petitions have been received for the construction of sewers in Peach and West State St. The Maple St. sewer will be considered by the council at the next meeting.

ST. PAUL, MINN.—Bids are asked by board public works until March 9 for constructing the Arundel St. sewer. R. L. Gorman, Clk.——The Anthony Park sewer will cost about $100,000.

LINCOLN, NEB.—T. H. Grath, Cy. Clk., writes us that an ordinance providing for $34,500 for sewer extensions will be voted upon April 7.

ST. LOUIS, MO.—E. H. Hermann, Sewer Comr., writes us that bids will be asked about May or June for constructing ½ mile of 12 to 15 ft. sewer with cut of 22 ft., costing $80,000 and ⅔ mile of 9-ft. sewer with cut of 18 ft., costing $55,000.

HOUSTON, TEX.—F. L. Dormant, Cy. Engr., is preparing plans for a complete sewer system, which will cost about $1,000,000.

AUSTIN, TEX.—Bids will be asked for constructing brick storm sewers on Congress Ave. as follows: 2,056 ft. of 5½ ft. diameter, 2,136 ft. of 5 ft., 2,156 ft. of 4 ft., and 652 ft. of 3 ft. Eighty inlets will be required. W. G. Sneed, Cy. Engr.

HOUSTON, TEX.—Bids are asked until March 9 for constructing the Hogan St. sewer extension. D. D. Bryan, Cy. Secy.

SHAWNEE, OKLA.—Main St. sewer will cost about $20,000.

TACOMA, WASH.—An ordinance for $15,000 for the Edison sewer has been introduced in the council.

PASADENA, CAL.—It is stated that S. J. Edwards received the Marengo Ave. sewer contract for $2,080.

LEWISTON, IDAHO.—Local papers state that City Engineer Briggs' report on the Normal Hill sewer was adopted by the council.

SALT LAKE, UTAH.—Reports state that Mayor Thompson has recommended the construction of more sewers.

BONDS.—Fresno, Cal., will vote on issuing $55,000 worth of bonds for septic tank March 31.——An issue of $100,000 sewer bonds is being discussed, Omaha, Neb.——A bond issue of $32,000 will be made by Long Branch, N. J.——A vote will be taken by Pocatello, Idaho, for $75,000 bonds.——Coatesville, Pt., will issue $40,000 sewer and street bonds.——Lower Merion, Pa., voted to issue $250,000 bonds.

GARBAGE DISPOSAL—STREET CLEANING

BROOKLYN, N. Y.—The contract for removal of garbage in Brooklyn has been transferred to Col. Adolph L. Kline.

LONG ISLAND CITY, N. Y.—Queens borough will receive $48,000 for equipment and $120,000 for carrying on the work of street cleaning. Of the $48,000 equipment money, $25,000 has been granted and the remainder will be secured in July. James F. O'Brien, Deputy Comr., has charge of the work.

NEW YORK, N. Y.—Bids are asked by the street cleaning commissioner, 13 Park Row, until March 13 for 300 sprinkling cans and hardware for Brooklyn borough, and 2,500 sprinkling cans for boroughs of Manhattan and the Bronx. John McG. Woodbury, Comr.

WHEELING, W. VA.—The city health board is to inquire into the cost of a new crematory.

DES MOINES, IA.—L. J. stated that the Engle Crematory Co., J. E. Engle, Newton, Ia., will ask for a franchise in this city.

ST. PAUL, MINN.—Contracts for the proposed municipal street sprinkling plant have been let as follows: Fielding & Shepley, five complete sprinkling wagons and tanks, $230 each, and two complete outfits, $160 each; James Forrestal Co., 13 tanks, $87 each; Studebaker Wagon Co., 13 wagons B grade, 750 gallons capacity, $80 each; Austen & Western, 10 complete outfits, 600-gallon tanks, $232 each; same firm, 30 complete outfits, 750-gallon tanks, $247 each, and 40 brakes, $5 each.

TOPEKA, KAN.—The council has passed an ordinance regulating the disposal of garbage.

KANSAS CITY, MO.—Reports state that Dr. J. M. Langsdale, Cy. Physician, has been considering plans for improving the city garbage service.

STREETS AND ROADS.

MANCHESTER, N. H.—The council has appropriated $21,000 for paving.

BOSTON, MASS.—Capt. A. M. Palmer, Q. M., writes us the following bids were received Feb. 21 for constructing roads and walks at Fort Revere: Joseph J. Callahan, Atlantic, $8,348; Carr & Andrews Corp., $10,117; Wm. J. McCarthy, Somerville, $10,745; Lane Construction Co., Meriden, Conn., $12,124 and $13,349; James H. Ferguson, Dorchester, $12,750; Geo. M. Bryne, $13,500; J. J. Sullivan, $13,960; Jones & Meehan, $17,600.

NANTUCKET, MASS.—The sum of $60,852 has been voted for three new streets.

SPRINGFIELD, MASS.—The superintendent of streets has asked for $50,000 for macadam streets.

WEST NEWTON, MASS.—Bids are asked until March 11 for laying tar concrete sidewalks, etc. Chas. W. Ross, Street Comr., City Hall.

YARMOUTH, MASS.—The sum of $5,400 will be appropriated for improving Railroad Ave., Hyannis road and South Sea Ave. Macadam will be used.

CHESHIRE, CONN.—Bids are asked until March 10 for turnpiking 110 miles of roads. J. D. Walter, Selectman.

ALBANY, N. Y.—Broadway is to be paved with asphalt. Bids asked later.

BROOKLYN, N.Y.—Bids are asked by the Borough President, Room 15, Municipal Department Bldg., until March 14 for paving about 107,670 sq. yds. with asphalt, and furnishing about 299 noiseless covers and lead for manholes.

CHESTER, N. Y.—Southern Boulevard will be paved with block asphalt at a cost of $236,000. Also Johnson Ave. and Spuyten Duyvil road with granite.

JOHNSTOWN, N. Y.—The paving of 10,000 sq. yds. of William St. is at a standstill. Bids for the East Main St. sewer will probably be called for about June 15. Jas. N. Miller, Cy. Engr.

NEW YORK, N. Y.—An appropriation of $2,465,000 has been made for paving.

TOMPKINSVILLE, N. Y.—The committee on interstate and foreign commerce has authorized a favorable report on the widening of Stuyvesant Place and South St.

NEW YORK, N. Y.—Bids are asked by the Borough Bronx President, Crotona Park, until March 7 for grading and setting the following: 5,000 ft. new curbstone, resetting 4,000 ft. old curbstone, etc. L. F. Haffen, Pres.

ATLANTIC CITY, N. J.—Atlantic Ave. will be paved by the city at a cost of $250,000 provided the West Jersey & Seashore R. R. Co. keep it in repair.

CAMDEN, N. J.—Petitions for repaving streets have been received to the amount of $127,600. Authority will be asked of the legislature to issue the necessary amount.

TOMS RIVER, N. J.—Bids are asked by the board of freeholders until March 31 for constructing a gravel road from Lakehurst to the intersection of roads at Archertown school house, as stated in our advertising columns. Estimated distance is 54,775 ft. E. Bennett, Dir.

BALTIMORE, MD.—Paving ordinances to the amount of $49,458 have been approved. Bonds will not be issued.

LYNCHBURG, VA.—A three-mile macadam road is being discussed, to cost $4,500.

NORFOLK, VA.—Asphalt paving for Main St. is being discussed.

AUGUSTA, GA.—Asphalt will probably be the material used for paving Broad St.

JACKSONVILLE, FLA.—W. L. Moor, Mayor, recommends spending $100,000 for streets and sewerage.

CINCINNATI, O.—The paving contract for Fuller St. has been awarded to Kirschner & Co. at $4,007.

CINCINNATI, O.—Bids are asked by the board of public service until March 19 for improving Hill St. G. F. Holmes, Clk.

TOLEDO, O.—Wm. McMahon bids $3,067 for paving Orange St. with Buckeye blocks and $4,296 for asphalt; O'Sullivan & Sheehan, $3,639 for Wassall or Peebles; Barber Asphalt Co., $3,583 for asphalt, and C. W. McKinney, $4,019 for asphalt.

TOLEDO, O.—Bids are asked until March 30 for paving Starr Ave., with blocks or asphalt. C. H. Nants, Cy. Clk.

BLUFFTON, IND.—D. O. North, County Surveyor, writes us that about 15 miles of gravel roads will be built this year.

LAFAYETTE, IND.—The legislature has appropriated $15,000 for the roadway at the Indiana State Soldiers' Home.

SOUTH BEND, IND.—Bids are asked by the board of public works, until March 13 for paving 27,154 sq. yds. with brick and excavating 7,897 cu. yds. A. J. Hammond, Cy. Engr.

DETROIT, MICH.—Asphalt paving this year may amount to $500,000.

GRAND RAPIDS, MICH.—L. W. Anderson, Cy. Engr., writes that bids will be asked until March 13 for 23,000 sq. yds. of asphalt block paving on gravel and cobblestone foundations.

SAGINAW, MICH.—K. W. Roberts, Cy. Engr., writes us that 22 streets will be paved with brick or macadam at a cost of $270,000. Plans and specifications are being prepared under Mr. Roberts' direction, and bids will be asked early in April.

GALESBURG, ILL.—J. B. McAuley, Cy. Engr., writes us that 13,000 sq. yds. of brick paving is contemplated at a cost of $16,000.

WILMETTE, ILL.—Bids are asked by the board of local improvements until March 14 for improving Central Ave. H. B. Gates.

FOND DU LAC, WIS.—E. B. Parsons, Cy. Engr., writes us that the paving of 19,442 sq. yds. with Metropolitan block, as advertised in Engineering News, has been let to John O. Jones, Racine, Wis., for $49,500.

BOONE, IA.—Bids are asked until March 13 for paving 19,295 sq. yds. with brick. C. E. Russell, Cy. Engr.

DAVENPORT, IA.—Ordinance pending for paving 16 streets at a cost of about $22,246.

DES MOINES, IA.—Bids are asked by the board of public works until March 20 for curbing about 1,241 ft. J. E. Stout, Bd. Pub. Wks.

MINNEAPOLIS, MINN.—Bids are asked by the council for paving 20,000 sq. yds with cedar block, 60,000 sq. yds. sandstone, 4,000 cu. yds. crushed slate, 40,000 sq. yds. brick, 40,000 sq. yds. block, 20,000 sq. yds. asphalt, 4,000 cu. yds. crushed granite, 10,000 cu. yds. limestone, 10,000 barrels Portland cement and 40,000 barrels native cement.

ST. PAUL, MINN.—A preliminary order for the paving of University Ave. has been sent to the board public works with appropriation of $10,000. The extension of the sewer system to Hamline and St. Anthony Park is being discussed.

TOPEKA, KAN.—Jas. F. McCabe, Cy. Engr., writes us that no paving appropriations have been made.

WICHITA, KAN.—Bids are asked until March 16 for paving 27,000 sq. yds. of Douglas Ave. with asphalt or brick. H. J. Harding, Cy. Engr.

ST. LOUIS, MO.—The street improvements which the municipal assembly is authorizing to be made during the present year will call for the paving in some 37 streets with asphalt, 10 streets with bituminous macadam, 43 with brick, 11 with granite and two with wood. Wm. Popp, Gen. Supt. of Street Construction.

ST. LOUIS, MO.—Bids are asked by the board of public works, room 30, New City Hall, until March 10 for paving various streets with asphalt. H. Phillips, Pres.

DENVER, COLO.—The bill for new sidewalks has been passed, with an appropriation of $54,600.

SEATTLE, WASH.—Reports state that the district near the South school will be graded, new sidewalks and gutter at a cost of $30,000.

BALLARD, WASH.—First and Third Aves. will be paved with brick, cement sidewalks and a new sewer laid at a cost of $40,000.

PORTLAND, ORE.—Hood St. may be paved with stone blocks. The city engineer will prepare plans for about 10 miles of street improvements on the west side.

LOS ANGELES, CAL.—The bid of M. S. Cummings for improving Fourth St. has been accepted at $8,138.

SAN FRANCISCO, CAL.—Third St. has been recommended to be repaved with basalt block and extension of the Third St. sewer at a cost of $80,000. Dupont St. may be paved with bitumen at a cost of $10,000.

BONDS.—An issue of $5,615,000 for paving has been authorized for New York, N. Y.——Bids are asked by the village of Kennedy Heights, O., until March 12, for $5,000 in street improvement bonds. O. W. Bennett, Allen Bldg., Cincinnati, O.——An issue of $40,000 is being considered

Information concerning contracts to be let or of supplies to be purchased, and corrections of errors and omissions in published items, are invited.

for sidewalks in Barry, Ill.——An issue of $100,000 for the Fall Creek Boulevard is under discussion.——A bond issue of $1,000,000 for boulevard is expected, Indianapolis, Ind.——Detroit, Mich., is discussing an issue of $2,000,000 for paving.——An issue of $100,000 for road improvements has been recommended for Lewiston, Idaho.

MONTREAL, QUE.—The road committee reports that $15,538 is necessary for permanent sidewalks.

MANUFACTURING PLANTS.

(For foreign manufacturing plants see under "Foreign Contracts and Export News.")

SOUTH MANCHESTER, CONN.—Cheney Bros. will spend $200,000 on improvements to their silk mill.

NEW YORK, N. Y.—The United States Steel Corporation will spend about $36,000,000 on improvements. In our next issue will be given the list of improvements as announced by the Corporation.

SYRACUSE, N. Y.—L. A. Leonard, New York, representing New York parties, purchased the Hyle Bros.' Steel Works, and will erect a new plant. Chas. M. Palmer, New York, is interested.

CAMDEN, N. J.—Milligan & Webber, Archs., 520 Walnut St., Philadelphia, will soon award contract for the Whitney Car Wheel Co.'s plant, costing $75,000. There will be five buildings of brick and steel.

ALLEGHENY, PA.—W. C. Scott, Secy. Thomas Carlin's Sons Co., writes us, under date of Feb. 28, that plans are now being made in the company's engineering department for a new fireproof steel building for machine shop, and bids would be taken and contracts awarded the following week. It is expected to have the shops completed within three months.

BERWICK, PA.—The American Car & Foundry Co. will soon start work on a brick and steel addition, 100 × 600 ft.

CHESTER, PA.—A contract will soon be awarded by the Seaboard Steel Casting Co. for a 2-story brick and steel plant, 60 × 100 ft. and 80 × 100 ft.

HAZLETON, PA.—Ballinger & Perrot, Archs., Chestnut St., Philadelphia, writes us that the National Water Tube Boiler Co., New Brunswick, N. J., received the contract for boilers and two 220-HP. return tubular and induced-draft apparatus for Jeanesville Iron Works Co.'s power house.

HOLMESBURG, PA.—The British Cotton & Wool Dyers' Association, Bradford, Eng., will erect a $150,000 plant. A. Hoegger is Pres.

McKEES ROCK, PA.—The Schultze plant of the American Bridge Co. has been destroyed by fire; loss, $200,000.

PHILADELPHIA, PA.—J. W. Fritzinger, Heed Bldg., received the contract for G. Collins' 2-story, 60 × 140-ft. brick addition, slow-burning construction.——Snare & Triest, 39 Cortlandt St., New York, received contract for machine and boiler shops and machinery foundation at League Island Navy Yard. The buildings will be of brick and steel, two stories high, 398 × 384 ft., and cost $300,000.——The United States Elevator Co., Bourse Bldg., is taking bids for a 4-story brick factory at 212 Dock St.——H. Nuss & Co., 223 North 13th St., are taking bids for a 5-story brick factory of slow-burning construction.——O. C. Wolf, Engr., 1025 Arch St., will soon award contract for ice machinery and a steel and brick 4-story boiler house for Consumers' Brewing Co.

PHILADELPHIA, PA.—Ballinger & Perrot, Archs., inform us that the heating of the Oakdale Baking Co.'s plant, 10th St. and Susquehanna Ave., has been awarded to S. Faith & Co.——The Stewart Contracting Co. has received the contract for the annex to the Black Diamond File Works on Frankford Ave.

PITTSBURG, PA.—The Jones & Laughlin Steel Co. will spend fully $10,000,000 on additions.

SANDTS EDDY, PA.—The Superior Improvement Co., National Bank Bldg., Nazareth, received contract for the National Portland Cement Co.'s 20-kiln plant.

SHARON, PA.—The National Steel Co. may spend $100,000 in making changes to plant, which will necessitate employing 200 more men.

CULPEPER, VA.—A knitting mill will be erected at once, to employ about 100 hands. Address J. C. Harring.

FREDERICKSBURG, VA.—A shoe factory is being discussed. C. W. Jones is interested.

AUGUSTA, GA.—Armour Packing Co. will probably erect an ice and refrigerating plant.

CARTERSVILLE, GA.—Plans are being prepared by A. G. Carkon & Co. for the Georgia Portland Cement Co.'s plant. There will be five 1-story fireproof buildings costing $600,000, with capacity of 1,000 barrels.

WAYCROSS, GA.—Work will shortly be begun on the South Atlantic Car & Mfg. Co.'s plant. Capitalization, $250,000.

BIRMINGHAM, ALA.—The Birmingham Paint Mills will probably increase its plant.——The plant of the Alabama Tube & Iron Co. will be increased. F. L. Clark is Pres.

HUNTSVILLE, ALA.—Plans are being prepared for the Merrimac Mfg. Co.'s mills, which will have 90,000 spindles and 2,900 looms.

YAZOO, MISS.—Captain W. D. Pugh will erect an ice factory.

CRESCENT, LA.—The Crescent City Stockyard & Slaughter House Co. will erect a fertilizer plant on Esteben St.

MEMPHIS, TENN.—Sledge & Wells Co.'s plant has been destroyed by fire, with loss of $60,000.

BUCYRUS, O.—Wagner & Morris, of the steam pump works, will locate their plant here. Bids will soon be asked.

CRESTLINE, O.—C. E. Stetter, Gen. Mgr. Crestline Mfg. Co., writes us that their machine shop will be 100 × 100 ft. and 60 × 175 ft., brick and stone, and a 75-HP. belt com. steam engine, 80-HP. horizontal boiler, iron stack, 30-in. pump, cylinder boring machinery and pump cylinder polisher are wanted.

CAMBRIDGE, O.—The National Glass Co. will improve its plant. Plans have already been prepared.

CANTON, O.—The Structural Steel Car Co. will increase capital to $10,000,000 and erect new works. Sites have already been secured. The works will be built within six months.

GIRARD, O.—We are informed that all contracts are let for the Ohio Leather Co.'s plant.

CHARLESTON, IND.—The New Richmond Canning Co. will erect plant. J. T. Detchon, Pres.

HAMMOND, IND.—The Mackie Steel Tube Co., having merged with the Clifton Mfg. Co., Boston and Buffalo, will erect additional buildings.

TERRE HAUTE, IND.—The Headly Window Glass Co., Fairmont, will erect plant here. Address Secretary.

MILWAUKEE, WIS.—Filer & Stowell Co. will erect a 250 × 400-ft. foundry costing $400,000.

RACINE, WIS.—Fire recently destroyed the J. I. Case Plough Works; loss, about $100,000.

BUTTE, MONT.—Plans have been completed by M. McLean, Basin, for a mill for the Alder Gulch Mining Co. E. W. King is Pres.

ATHENS, TEX.—The new cotton mill will be equipped with 10,000 spindles. Houston and local parties are interested.

HOUSTON, TEX.—Work on the $40,000 rice mill will start soon.

ORANGE, TEX.—Bobbin and skewer factories may locate here. Also a shoe factory. The Progressive League is encouraging the proposed works.

RUSK, TEX.—A bill has passed the state senate providing for the reopening of the iron industry at the state penitentiary. An appropriation of $75,000 has been made for the necessary improvements.

HOQUIAM, WASH.—Reports state that a company with a capital stock of $100,000 and composed of J. O. Davenport, F. F. Williams, D. R. Hanson and G. L. Davis will erect a saw mill at this place.

SEATTLE, WASH.—The Seattle Iron & Steel Co., capitalized at $6,000,000, will build iron furnaces with daily capacity of 200 tons, 100-ton steel plant and a rolling mill.——The Washington Iron Works is erecting machine shops costing, with machinery, $100,000, and a $50,000 boiler shop will be erected.

PORTLAND, ORE.—J. B. Duryea and others have organized a saw-mill, capacity 45,000 ft. a day, box factory 15,000 ft. a day, veneer plant 50,000 ft. day and door factory, 500 doors a day.

MARSHFIELD, ORE.—A band pony, steam-log trimmer and electric plant will be added by Gardiner Mill Co.

ROSEBURG, ORE.—W. P. Campbell and others have organized the Double Lock Corner Box Co. with $100,000 capital and will erect factory.

SAN FRANCISCO, CAL.—The Globe Grain & Milling Co., Los Angeles, will erect a 2,200-barrel mill at a cost of $200,000. W. E. Keller is Pres.

NEWPORT BEACH, CAL.—A large smelting plant may be established here.

PASADENA, CAL.—A factory will be erected for manufacturing the national voting machines. Capitalization is $5,000,000. E. C. Webster is Pres.

STOCKTON, CAL.—Reports state a glass factory will be built.

PHOENIX, ARIZ.—A $1,000,000 sugar factory will probably be erected with 500 tons a day capacity.

BRIGHAM CITY, UTAH.—Reports state a canning factory will be erected. J. D. Peters is on Com.

OGDEN, UTAH.—It is stated that a $40,000 distillery will be erected.

LEWISTON, IDAHO.—Reports have it that I. J. Merrill's foundry will be enlarged.

VANCOUVER, B. C.—W. L. Keene, representing English stockholders, will erect creosoting factory at cost of $50,000.

MISCELLANEOUS CONTRACTS.

(For foreign miscellaneous contracts see under "Foreign Contracts and Export News.")

CONDUIT.—San Diego, Cal.—A conduit at B St., to cost $66,724, is proposed.

PUBLIC DOCKS.—Islip, N. Y.—Public docks to cost $30,000 are contemplated.

DREDGING.—Ligonier, Ind.—The city may dredge and straighten the Elkhart River.

WHARF WORK.—San Diego, Cal.—The ocean wharf is to be extended at cost of $10,000.

AQUARIUM.—Washington, D. C.—The U. S. Fish Commission is asking for a new aquarium.

ROCK CRUSHER.—Pittsfield, Me.—C. E. Vickery will report on the purchase of a rock crusher.

DAM.—Eau Claire, Wis.—This city asks the right to dam the Chippewa River to form a pleasure lake.

BREAKWATER.—Ocean Park, Cal.—A breakwater here is considered by Ocean Park Improvement Co.

DRAIN.—Williamsburg, Ont.—Contracts for Whitteker drain were let to Frank Morewood, for $8,490.

MINING MILLS.—Rossland, B. C.—The Le Roi, Center Star and War Eagle mines contemplate building mills.

FIRE ALARM SYSTEM.—Trenton, N. J.—A new fire alarm system for this city has been recommended, to cost $40,000.

DAM.—Kalispell, Mont.—The contract for a wing dam across the Flathead River has been let to B. F. Shanley for $2,030.

TELEPHONE FRANCHISE.—San Jacinto, Cal.—Franchise for telephone system granted to Sunset Telegraph & Telephone Co.

HOISTING PLANT.—Baker City, Ore.—It is stated that the Climax Mine, R. R. Bishop, Mgr., will install a new hoisting plant this spring.

MEMORIAL.—Washington, D. C.—Henry M. Shrady, New York, N. Y., will design the Grant memorial for this city, which is to cost $250,000.

DREDGING.—New York, N. Y.—Col. S. M. Mansfield, U. S. Engrs., writes us that no bids were received Feb. 20 for dredging in Carnarsie Bay.

RIVER IMPROVEMENT.—Indianapolis, Ind.—The state is to be asked to appropriate $75,000 for improving Kankakee River in Northern Indiana.

WHARF.—Seattle, Wash.—Reports state that Wm. H. McPhee, associated with Capt. W. E. Geiger, will erect a $50,000 wharf at Valdez, Alaska.

COAL MINES.—Gadsden, Ala.—The Big Bushy Coal & Coke Co. will develop a large tract of coal land near Littleton and will erect coke ovens.

CONCENTRATOR.—Frisco, Utah.—A 1,500-ton concentrator is to be installed in the Cactus group of mines under charge of Manager Johnson.

WHARF.—Los Angeles, Cal.—M. Kelleher is to ask for a franchise for a wharf at Cypress St. The wharf proposed is to be 2,460 ft. long and 30 ft. wide.

PORTLAND CEMENT.—Brandon, Ont.—Bids are asked until March 20 for supplying from 2,000 to 3,000 bbls. Portland cement. J. B. Whitehead, Cy. Clk.

DAM.—Chelan, Wash.—The construction of a dam across the outlet of Lake Chelan, for the purpose of raising the water level, is urged by the citizens.

DOCKS.—Quebec, Que.—The harbor board is asking the government to build extensive docks instead of spending $3,000,000 on a pier in the St. Charles River.

DRY DOCK.—Mobile, Ala.—The Mobile Dry Dock Co. announces completion of arrangements for constructing a 3,500-ton capacity dry dock, to cost $250,000.

PARK IMPROVEMENTS.—Muncie, Ind.—It is stated that the Muncie, Hartford City & Fort Wayne Traction Co. will spend $60,000 in improving Eaton Park.

BOAT.—Wheeling, W. Va.—Bids are asked until March 30 for manoeuvering boat with wooden hull for Dam No. 6, Ohio River. Capt. W. E. Craighill, U. S. Engrs.

SEA WALL WORK.—Sacramento, Cal.—A bill for a $2,000,000 bond issue for repairs and extension of San Francisco water front sea wall is before the governor.

WATERWAY.—Chaska, Minn.—Senator F. E. De Toit, of this place, is advocating a bill providing $7,500 for building a waterway from Lake Auburn to Lake Minnetonka.

CHIMNEY.—New York, N. Y.—Plans have been filed for a 180 ft. high, 22 × 22 ft. chimney, to be erected on property of Schwarzschild & Sulzberger Co., First Ave. and 45th St.

PARK SYSTEM.—Seattle, Wash.—Olmstead Bros., Landscape Archs., Boston, Mass., will probably be awarded the contract for planning a park and boulevard system for Seattle.

STEAMBOAT.—Hoquiam, Wash.—Reports state that the E. K. Wood Lumber Co. is to buy a $100,000 lumber steamboat having a carrying capacity of 750,000 ft. F. J. Wood is Mgr.

MACHINERY.—New York, N. Y.—Bids are asked by the Dock Commissioner, Battery Pl., until 12 o'clock, March 6, for furnishing and delivering machinery. McDougall Hawkes, Comr.

LIGHT TOWER.—Boston, Mass.—Bids are asked until March 26 for furnishing and delivering granite for light and fog signal tower on The Graves. Lt.-Col. W. S. Stanton, U. S. Engrs.

SMELTERS.—Redding, Cal.—The Great Western Gold Co., Dr. E. F. Adams, Pres., will install a copper smelting plant at the Afterthought mine, also a 500-ton smelter at the Liberty mine.

OIL LAND DEVELOPMENT.—Los Angeles, Cal.—The Union Oil Co. will soon develop 180,000 acres of land in northern part of Santa Barbara county. A ten-mile pipe line may be laid.

TRACK SCALE.—Washington, D. C.—Bids are asked until March 14 by the Bureau Yards and Docks for a 100-ton railroad track scale at Pensacola, Fla., Navy Yard. M. T. Endicott, Ch

PUMPING PLANT, ETC.—Bisbee, Ariz.—The Copper Glance Mining Co. has let a contract for 200-HP. boilers, pumping plant, pipes, etc., to the Allis Chalmers Co., Chicago, Ill., for about $13,000.

GUN FORGINGS.—Washington, D. C.—Bids are asked by the Ordnance Bureau, Navy Department, until March 11 for furnishing 20 sets of 8-in. and 12 sets of 7-in. gun forgings. Charles O'Neil, Ch.

RIVER IMPROVEMENTS.—Sacramento, Cal.—Frank D. Ryan, Comr. Pub. Wks., has plans for the improvement of the Sacramento River, and a bill asking $750,000 for the work is before the legislature.

OIL BURNERS AND NEW STEAMER.—Portland, Ore.—The Regulator line will convert some of its boats into oil burners. The company also has plans for a new stern-wheel boat to cost $100,000.

SUBWAY STATION.—New York, N. Y.—Plans are nearly completed by Heins & La Farge, Archs., 30 E. 21st St., for ornamental passenger exit and entrance to the Park Row station of the subway.

DELAWARE RIVER IMPROVEMENT.—Philadelphia, Pa.—Bids are asked until April 2 for removing rock in Delaware River, as is stated in our advertising columns. Lt.-Col. C. W. Raymond, U. S. Engrs.

COPPER WIRE.—New York, N. Y.—Bids are asked until March 12 by the Bridge Department, 13 Park Row, for furnishing and delivering 37,000 ft. weatherproof insulated copper wire. G. Lindenthal, Comr.

STEAMSHIPS.—Tacoma, Wash.—Under orders from J. J. Hill, Pres. Great Northern Railway, the Pacific Coast Construction Co. is said to be preparing to construct two $1,000,000 steamships for the coast trade.

CANAL WORK.—Chattanooga, Tenn.—Bids are asked until April 11 for constructing upper section of Colbert and Bee Tree Shoals Canal, as stated in our advertising columns. Major John G. D. Knight, U. S. Engrs.

DITCH.—Rockwell City, Ia.—Bids are asked until March 24 for constructing a drainage ditch in Lake Creek township. Ditch is to be 3.8 miles long and contains about 40,700 cu. yds. B. E. Stonebroker, County Auditor.

WHARF, ETC.—Port Townsend, Wash.—Bids are asked until March 9 for constructing wharf, warehouse, boathouse and approach, gravel road, etc., at Crockett's Lake, Fort Casey. Capt. Geo. H. Penrose, Q. M., U. S. A.

DRAINAGE DITCH.—Webster City, Ia.—We are informed that surveys are being made for a 26-mile ditch, starting at Iowa River in Hardie county and ending at Blairsburg, in Hamilton county. Edw. E. Fox is Engr.

CRANE SCOW.—Washington, D. C.—Bids are asked by the Bureau Yards and Docks, until March 28, for constructing 30-ton crane scow for Boston, Mass., Navy Yard. Appropriation is $19,800. M. T. Endicott, Ch. Bur.

MOORING PIERS, ETC.—Washington, D. C.—Bids are asked until March 21 for constructing five mooring piers, five dolphins, a wharf and four bulkheads at Newport, R. I., torpedo station. M. T. Endicott, Ch. Bur. Yds. and Docks.

DREDGING.—Montgomery, Ala.—Bids are asked until April 4 for dredging at West Pass entrance to Apalachicola Bay, Fla., and East Pass entrance to Carrabelle Harbor, Fla., as is stated in our advertising columns. Lt. R. R. Raymond, U. S. Engrs.

STEEL SHAPES.—Washington, D. C.—Bids are asked by the Bureau Supplies and Accounts, Navy Department, until March 24, for furnishing steel shapes, plates, forgings, billets, molding, rivet steel and white oak. A. S. Kenny, Paymaster-Gen., U. S. N.

DRAINAGE DITCH.—Onawa, Ia.—We are informed that preliminary surveys for a ditch connecting with the Woodbury-Monona county ditch have been started. The ditch is to run through Monona and Harrison counties to the Missouri River, a distance of 24 miles.

CONCENTRATING MILL.—Loomis, Wash.—J. M. Hagerty, Mgr. Six Eagles Mining Co., writes us that a 100-ton concentrating plant is to be built and that contracts for milling machinery will be ready about May 1 or as soon as the ledge which they are now tunneling is cut sufficient to learn the character of the deposit. C. A. Andrus, La Grange, O., is Pres.

LOCKS AND DAMS.—Mobile, Ala.—Bids for constructing locks and dams Nos. 1, 2 and 3 in the Warrior and Tombigbee rivers were received here Feb. 28. The bid of M. T. Lewman & Co., Louisville, Ky., was as follows: (1) being bid for lock and dam No. 1, (2) for lock and dam No. 2, (3) for lock and dam No. 3: (1) $266,414, (2) $215,641, (3) $235,436; total, $717,491.

Information concerning contracts to be let or of supplies to be purchased, and corrections of errors and omissions in published items, are invited.

CHANNEL WORK.—**Boston, Mass.—Contracts totalling about $2,000,000 have been let to the following firms for digging the 35-ft. channel in Boston Harbor: Breyman Bros., Toledo, O.; Morris & Cummings, New York, N. Y.; Eastern Dredging Co., Boston, Mass.; New England Dredging Co., Boston, Mass.**

BEACH DEVELOPMENT.—**Cape May, N. J.—The council has adopted an agreement by which the city and a syndicate are to make many municipal and private improvements. Chief among these will be an extension of the beach boulevard, the building of sewerage and the development of 3,000 acres of meadow land. The cost of all the work will aggregate $2,000,000.**

MASONRY DAM.—**Union, S. C.—Bids are wanted by the Union Power & Mfg. Co. until March 21 for constructing a rubble masonry dam, containing about 9,000 cu. yds. of masonry; a concrete masonry power house, containing about 4,000 cu. yds., and two earth dams, containing about 19,000 cu. yds., as stated in our advertising columns. W. B. Smith Whaley & Co., Engrs., Columbia, S. C.**

LIGHT HOUSE TENDER.—**Washington, D. C.—The following bids were received Feb. 21 for constructing steel twin-screw light house tender Ivy: Baltimore Shipbuilding & Dry Dock Co., Baltimore, Md., $117,949 with furniture and outfit, $115,929 without; 11 months. Columbia Iron Works, Port Huron, Mich., $124,433. Crescent Shipyard Co., Elizabethport, N. Y., $120,000. Johnson Iron Works, Ltd., New Orleans, La., $120,475. Neane & Levy Ship & Engine Building Co., Philadelphia, Pa., $123,500 without furniture, $128,750 with furniture, $121,000 with Roberts boiler, $126,250 complete with Roberts boiler; 11 months. New York Shipbuilding Co., Camden, N. J., $139,000. The Gas Engine & Power Co. and Charles L. Seabury & Co., Morris Heights, N. Y., $116,875, qualified without furniture and outfit; 18 months. Townsend & Downey Shipbuilding Co., New York, N. Y., $144,500 without furniture and outfit; $148,000 complete; no check.**

CONTRACT PRICES.

FILTER MATERIAL, ETC.—Washington, D. C.—The following bids were received by Lieut.-Col. A. M. Miller, U. S. Engr., Feb. 20, for furnishing filter material and work of constructing the Washington Aqueduct filtration plant; irregular bids: Camden Iron Works, Camden, N. J., cast-iron pipe and specials, $43,400; B. Wallis & Co., Baltimore, Md., pipe, $32,000 (f. o. b. cars Washington); U. S. Cast-Iron Pipe & Foundry Co., Philadelphia, cast-iron pipe and specials, $49,781 (and $1,211 added for hauling); R. M. Evans, Philadelphia, 42,300 cu. yds. gravel, $3.37 per cu. yd., 140,200 cu. yds. sand, $3.87 (70 cts. extra hauling, laying and placing); Thomas J. Somerville & Sons, Washington, pipe, $26,265; Potomac Terra Cotta Co., Washington, $27,747; Edward G. Gummel, Washington, gravel, $2.98 a cu. yd.; Chas G. Smith & Son, Washington, gravel, $3.47; L. E. Smoot, Washington, gravel, $2.75, sand, $2.25:

Quantities.	(A.)	Harmer & Quinn, Philadelphia.	D. J. McNichol, Philadelphia.
Excavation ....880,000 yds.	$0.35	$0.47	$0.38
Embankment:			
Under filters 65,400 "	.40	.37	.48
Other ..... 46,700 "	.35	.37	.43
Fill over filters123,400 "	.40	.37	.48
Puddle ..... 2,000 "	4.50	2.37	6.20
Seeding ..... 31 acrs	100.00	75.00	110.00
Sodding ..... 9,700 yds.	.40	.37	.39
Total $415,845			
Concrete:	(B).		
In floors ... 39,300 yds.	$5.24	4.37	6.96
In walls .... 26,300 "	5.60	6.37	7.56
In piers .... 8,200 "	6.60	8.37	9.26
In vaulting . 37,400 "	7.97	6.87	8.16
Gran. pavement 35,000 "	.89	1.37	.90
Filter gravel .. 42,300 "	.....	2.87	3.15
Filter sand ....140,200 "	.....	3.37	3.40
For 29 filters:			
Materials in masonry...	250.00	57.00	60.00
Drainage of roofs.....	450.00	573.00	597.00
Steel pipe system, complete	.....	59,973	55,330
Cast-iron pipe and specials	.....	47,373	45,226
Wrought-iron pipe	.....	9,773	8,517
Drainage system and manholes, ...	.....	15,973	17,989
Vitrified pipe	.....	17,973	25,000
Total $756,869		$1,987,183	$2,130,710

Note.—(A) is bid of Talty & Allen, Washington, D. C.; (B) that of The Brennan Construction Co., also of Washington, D. C.

STREET IMPROVEMENTS.—Brooklyn, N. Y.—The following bids were received Feb. 18 for street improvements; (1) Eastern Bermudez Asphalt Paving Co., 26 Court St.; (2) Uvalde Asphalt Paving Co., 26 Court St.; (3) Interstate Paving Co., 44 Court St.; (4) Cranford Co., 215 Montague St.; (5) Dennis Norton, 301 Douglas St.; (6) Jas. H. Holmes & Co., 271 North 6th St.; (7) Murphy Bros., 25th Ave., Bath Beach; (8) W. L. Castle, Johnson Place; (9) Dan. Douglass, Brooklyn; (10) Interstate Paving Co., 44 Court St.; all bidders of Brooklyn:

Asphalt Paving, Etc., in Christopher St.

	1.	2.	3.	4.
Asphalt .....13,198 sq. yds.	$1.48	$1.40	$1.42	$1.42
Concrete ..... 2,239 cu. yds.	5.60	5.50	5.50	5.30
New curb ..... 7,299 lin. ft..	.90	.90	.90	.80
Earth excav..13,760 cu. yds.	.40	.40	.35	.30
Cem. sidewlks.34,175 sq. ft...	.25	.18	.22	.18
Total $52,688	$49,916	$49,959	$47,626	

Laying Sidewalks, Etc., in Flatbush Ave.

	5.	6.	7.	8.	9.
Excavation 6,350 yds.	$0.48	$0.49	$1.00	$0.60	$0.45
Fill ..... 1,850 "	.73	.75	1.00	1.50	.65
Conc. crb.15,660 ft...	.64	.63	.65	.55	.65
Sidewlks 54,840 ft...	.20	.23	.25	.24	.23
Total $24,389	$26,978	$32,088	$28,359	$26,851	

Asphalt Paving, Etc., in Barbey St.

	1.	4.	10.	2.
Asphalt ..... 9,790 sq. yds.	$1.48	$1.43	$1.42	$1.48
Concrete ..... 1,370 cu. yds.	5.60	5.30	5.50	5.50
Old curb ..... 50 lin. ft..	.30	.30	.45	.25
Mnhole covers 31 each...	6.00	5.00	5.50	5.00
Excavation .. 5,120 cu. yds.	.40	.30	.35	.35
Concrete curb 6,560 lin. ft..	.65	.55	.55	.50
Cem. sidewlks20,840 " "	.25	.18	.22	.18
Total $33,772	$30,326	$31,615	$31,015	

ASPHALT REPAIRS.—Brooklyn, N. Y.—The following bids were received on Feb. 18, 1903, for repairing and maintaining asphalt pavements in various streets in the Borough of Brooklyn; all local bidders:

Bidder.	Asphalt, per sq.yd.	Binder, per lin.ft.	Concrete, per cu. ft.	Total.
Uvalde Asp. Paving Co.....	$0.95	$0.40	$1.35	$51,500
Cranford Co.	.97	.35	1.32	52,000
Bklyn Alcatraz Asp. Co.....	1.00	.50	1.50	55,000

MASONRY CONDUIT.—Jersey City, N. J.—John H. Gregory, Div. Engr., Jersey City Water Supply Co., Paterson, informs us that the following bids were received by the company on Feb. 16 for constructing the masonry conduit. The prices for conduit lining and masonry do not include Portland cement, which will be furnished by the company; Eldow W. Harrison, Ch. Engr.:

BIDS RECEIVED AT JERSEY CITY, N. J., FEB. 16, 1903, FOR CONSTRUCTING MASONRY CONDUIT.

Section 1.

Item No.	Quantities.		Joseph S. Qualey Co., New York.	Eastern Construction Co., New York.	N. Y. Continental Jewell Filtration Co., New York.
1	Completing excavation in trenches	2,980 lin. ft..	$3.50	$3.20	$1.00
2	Completing excavation in drifts	1,670 " "	5.50	3.50	5.00
3	Earth excavation	1,400 cu. yds.	.60	.75	.75
4	Rock excavation	200 " "	2.00	3.00	2.50
5	Embankment and backfilling	3,440 lin. ft..	.85	3.00	2.00
6	Conduit lining, Type A.....	2,200 " "	8.50	7.50	9.50
7	" " " B.....	700 " "	10.00	9.00	10.00
8	" " " D.....	1,400 " "	9.50	9.25	12.00
9	" " " E.....	120 " "	9.00	10.00	18.00
10	" " " F.....	150 " "	9.00	11.00	19.00
	Alternative bids:				
11a	Exp'd metal; reinforcement conduit lining.	80,000 sq. ft...	.10	.06	.07
11b	Ransom rod, reinforcement conduit lining.	80,000 " "	.10	.05	.06
11c	Electrically welded fabric for conduit lining	80,000 " "	.10	.05¼	.06½
12	Overflow pipe	720 lin. ft..	5.00	2.75	2.50
13	Concrete	50 cu. yds.	3.50	7.50	8.00
14	Gate chamber and appurtenances		2,000.00	2,200.00	2,000.00
15	Dry rubble paving	50 cu. yds.	1.50	2.50	2.00
	Total: Items 1 to 10, and 12 to 15.....		$71,659	$70,631	$73,770
	" " 1 to 10, 11a and 12 to 15.....		79,659	75,431	79,370
	" " 1 to 10, 11b and 12 to 15.....		79,659	74,631	78,570
	" " 1 to 10, 11c and 12 to 15.....		79,659	74,831	78,970

Section 2.

Item No.	Quantities.		Harold Bouton, Boonton, N. J.	Eastern Construction Co., New York.	N. Y. Continental Jewell Filtration Co., New York.
1	Completing excavation	2,760 lin. ft.	$4.00	$2.00	$1.50
2	Earth excavation	50 cu. yds.	1.00	.75	.75
3	Rock excavation	5 " "	5.00	3.00	3.00
4	Embankment and backfilling	2,760 lin. ft..	.97	3.00	2.00
5	Conduit lining, Type A.....	2,500 " "	8.23	7.50	10.00
6	Conduit lining, Type B.....	90 " "	9.87	8.50	14.00
	Alternative bids:				
7a	Expand. metal; for conduit lining.....	50,000 sq. ft...	.08	.06	.07½
7b	Ransome rod, for conduit lining.....	50,000 " "	.08	.05	.06½
7c	Electrically welded fabric for conduit lining	50,000 " "	.08	.05¼	.07
8	Concrete	50 cu. yds.	4.00	7.00	9.00
9	Gate chamber at Station 131 + 20.....		2,250.00	2,600.00	2,250.00
10	Gate chamber at Station 168 + 20.....		2,250.00	2,600.00	2,500.00
11	Dry rubble paving	50 cu. yds.	4.00	1.80	2.00
	Total: Items 1 to 6 and 8 to 11.....		$40,155	$39,007	$41,272
	" " 1 to 6, 7a and 8 to 11.....		44,155	42,007	45,022
	" " 1 to 6, 7b and 8 to 11.....		44,155	41,507	44,522
	" " 1 to 6, 7c and 8 to 11.....		44,155	41,632	44,772

Section 3.

Item No.	Quantities.		The Metropolitan Const'n Co., Jersey City.	Eastern Construction Co., New York.	N. Y. Continental Jewell Filtration Co., New York.
1	Earth excavation	40,000 cu. yds.	$0.75	$0.75	$0.75
2	Rock excavation	7,000 " "	2.50	3.00	3.00
3	Conduit lining, Type A.....	9,000 lin. ft..	9.26	6.50	9.50
4	" " " B.....	100 " "	16.30	7.50	12.00
5	" " " C.....	50 " "	9.71	9.50	15.00
	Alternative bids:				
6a	Expanded metal, for conduit lining.....	270,000 sq. ft...	.06	.05½	.07
6b	Ransome rod, for conduit lining	270,000 " "	.06	.04½	.06
6c	Electrically welded fabric for conduit lining	270,000 " "	.06	.04¾	.06½
7	Concrete	350 cu. yds.	9.00	6.75	8.00
8	Gate chamber at Station 394 + 40.....		2,200.00	3,400.00	2,750.00
9	Gate chamber at Station 491 + 80.....		2,800.00	2,200.00	2,000.00
10	Dry rubble paving.....	250 cu. yds.	3.00	1.80	2.00
	Total: Items 1 to 5 and 7 to 10.....		$146,811	$123,037	$152,200
	" " 1 to 5, 6a and 7 to 10.....		163,011	137,887	171,100
	" " 1 to 5, 6b and 7 to 10.....		163,011	135,187	168,400
	" " 1 to 5, 6c and 7 to 10.....		163,011	135,862	169,750

Section 4.

Item No.	Quantities.		Hudson County Tunneling Co. Jersey City.	Eastern Construction Co., New York.	N. Y. Continental Jewell Filtration Co., New York.	United Engineering & Contracting Co., New York.
1	Earth excavation	14,000 yds.	$0.65	$0.75	$0.75	$2.15
2	Rock excavation.....	1,000 "	1.75	3.00	3.00	3.50
3	Conduit lining, Type A.....	3,250 ft...	8.26	7.00	9.50	7.00
4	" " " B.....	150 "	9.30	8.00	12.00	9.00
5	" " " C.....	200 "	8.71	10.00	14.00	8.40
	Alternative bids:					
6a	Expanded metal for conduit lining...	100,000 "	.06	.05½	.07	.04
6b	Ransome rod for conduit lining.....	100,000 "	.06	.04½	.06	.036
6c	Electrically welded fabric for lining..	100,000 "	.06	.04¾	.06½	.05
7	Concrete	100 yds.	9.00	7.25	8.00	5.20
8	Gate chamber at Station 526 + 20.....		2,000.00	2,200.00	2,250.00	1,500.00
9	Gate chamber at Station 637 + 90.....		2,000.00	2,200.00	2,000.00	1,500.00
10	Crossing at Third River		3,500.00	3,000.00	3,000.00	2,150.00
11	Dry rubble paving	100 yds.	3.00	2.65	2.00	3.50
	Total: Items 1 to 5 and 7 to 11.....		$49,532	$47,840	$57,225	$67,350
	" " 1 to 5, 6a and 7 to 11.....		55,532	53,340	64,225	71,350
	" " 1 to 5, 6b and 7 to 11.....		55,532	52,340	63,225	70,950
	" " 1 to 5, 6c and 7 to 11.....		55,532	52,590	63,725	72,350

IRRIGATION.—Mexico.—The Rio Mayo Agricultural Co. is making surveys for the irrigation ditches which it proposes to construct in the Yaqui country, in the State of Sonora, for which it holds a concession from the federal government. It is proposed to purchase considerable pumping machinery in the United States for use in connection with the work.

FOREIGN CONTRACTS—EXPORT NEWS.

DREDGE.—Dublin, Ireland.—Bids are asked until March 23 for supplying a suction hopper dredge. N. Proud, Secy. Port and Docks Bd.

FACTORIES.—Switzerland.—W. Bardel, U. S. Consul at Bamburg, Germany, reports that a number of manufacturers of watches at Basel and elsewhere in Switzerland are preparing to emigrate to Alsace, Germany.

METALLURGICAL WORKS.—Mexico.—A concession has been granted to Horace Christian Gerber by the Department of Fomento for the construction of metallurgical works in San Antonio de la Huerta for reducing ores. The capacity of the smelters will be 100 tons.

TRAMCARS.—London, Eng.—Bids are asked by the London County Council until March 17 for supplying 100 double-decked electric tramcars, complete with Bogie trucks, motors, controllers, plows, etc., and 100 similar tramcars with single trucks. G. L. Gomme, Clk., County Hall, Spring Gardens.

ELECTRIFYING TRAMWAYS.—Australia.—It is reported that the Electric Supply Co., of Victoria, Ltd., has been organized for the purpose of electricelly converting the existing horse tramways in Ballarat and establishing an electric lighting system in that city, expending in all about $600,000.

DRY DOCK.—Adelaide, South Australia.—Reports state that a dry dock designed by W. E. Urlwin, formerly with H. J. Crandall, Son & Co., East Boston, Mass., will be built at Adelaide. It will be 450 ft. long, 130 ft. wide at the top and 70 ft. at the bottom, with a gate 75 ft. in width and a depth in the keel blocks of 26 ft. About $250,000 will be expended on the work.

ELECTRIC LIGHTING.—Hungary.—Bids will be received by the Directorate of State Railways, Lemberg, until March 10 for lighting the railway station at Lemberg with electricity, the complete installation to cost about $28,500.——The lighting of towns with gas or electricity in place of oil is being considered, Orsova being one of the towns having that improvement in view.

Information concerning contracts to be let or of supplies to be purchased, and corrections of errors and omissions in published items, are invited.

ELECTRIC LIGHTING.—India.—The contract for the electric lighting of Bombay has been awarded to the British Electrical Engineering Co., Ltd., London. The same company has also secured the contract for electrifying the existing horse tramways in that city.

ARTESIAN WELLS.—Nankin, China.—Wm. Martin, U. S. Consul, writes the Department of State at Washington, D. C., that the city of Nankin does not possess a waterworks system or any source of supply of drinkable water, and that he drove the first well in the province and secured a clear water at a depth of 30 ft. The example set by him is now about to be followed by the Chinese officials of that city, and already appropriations have been made for sinking 100 similar wells about the city. Mr. Martin has been consulted by the Viceroy and has advised against the expenditure and suggested artesian wells with storage for fire purposes as preferable. Chang Ching, a wealthy native, has formed a company, which has purchased 1,000 acres of land with the intention of utilizing it for cotton raising and other agriculture, and has asked Mr. Martin about American machines for diking, deep-well boring and windmills. In connection with these projects the latter states that persons understanding the sinking of artesian wells and other methods of securing a good water supply will find a good opening in China, and if manufacturers of machinery used in connection with these works will send him catalogues and net prices and probable freight cost of their various products from New York to Shanghai he will see that they are placed where they will do the most good.

MISCELLANEOUS WORKS.—Mexico.—A correspondent has sent us the following information: Mexico City.—A company of local capitalists has been organized for the purpose of utilizing the waters of Chalce and Xochimilco lakes for irrigation purposes. The construction of a system of irrigating canals at an estimated cost of $6,000,000 forms part of the plans of the company. It is also proposed to establish a large electric power plant at the waterfall of the Mixquihuala River.——A concession has been granted to H. H. Moran and J. Emilie Meyer, of this city, to quarry and manufacture lithograph stone. The terms of the concession require that not less than $100,000 shall be invected in the plant and shops necessary for conducting the business. The machinery, apparatus and material for the first plant shall be imported free of duty.——Cordova.—The North American Beef Co., which is composed of Chicago capitalists, will commence the erection of a beef packing plant at this place within a few weeks. The original cost of the plant will be about $550,000. This company is now erecting a packing plant at Uruapan, State of Michoacan, Mexico, at a cost of $650,000. In addition to the slaughtering and packing plants, factories for the manufacture of a number of by-products will be built.——Papantla, State of Vera Cruz.—A factory for manufacturing vanilla extracts is to be established here. The company obligated itself to expend not less than $100,000 in the plant.——Orizaba.—The city council is considering the question of constructing a system of water-works.——Chihuahua.—R. M. Burke, formerly U. S. Consul at this place, who obtained a concession from the government some time ago for the establishment of an electrical power station and transmission system in this state, announces that the necessary capital for the enterprise has been subscribed and that the construction will begin within the next few weeks. It is proposed to erect a dam across the Concho River at La Joya, and to thus abtain the water power for generating the electrical energy, which is to be transmitted to the cities of Chihuahua and Parral.——Gonzalez.—The Mexican National R. R. Co. has prepared plans for a new station, hotel and lodging building at this place. It will be built entirely of stone. Puebla.—A German company is making preparations to establish a large hosiery factory here.——Durango.—The Compania Nacional de Fierro y Acero will erect a plant here for the manufacture of vitrified brick.——Chihuahua.—The San Jose Mining, Milling & R. R. Co. is building a road between San Jose del Sitio and the Gabalana mining district, a distance of eight miles. M. B. Place, Gen. Mgr., states that Chief Engineer Stafford and party will at once begin surveying the route for an extension north through the mineral and timber districts of the Sierra Madres to connect with the Kansas City, Mexico & Orient R. R., now under construction.——Alamos, State of Sonora.—The Santa Fe Gold Mining Co. will erect a smelter and metallurgical works at this place.——Monterey.—A company of Ohio capitalists is being organized to build and operate a boot and shoe factory and a tannery in this city, and proposes to invest $1,000,000 in the enterprise.

CONTRACT PRICES.

SEWER WORK, ETC.—Atlanta, Ga.—We are informed that the following bids were received on Feb. 16 for constructing trunk and lateral sewers, and for brick sidewalks and curbing; bidders local, except where otherwise stated; Cement—Sciple Sons, Louisville cement, 45 cts. per 100 lbs.; Red Diamond Portland, 50 cts. per 100 lbs.; V. H. Kreigershorber, Louisville, 44 cts., Dixie 40 cts., Atlas 75 cts., Southern Cross 55 cts.; Randall Bros., Louisville 44 cts., Magnolia 42.5 cts., Alabama 54 cts.; Castings and Valves—Moncrief Furnace & Foundry Co., $1.50 per 100 lbs. for castings, and $4.45 each for valves; Withers' Foundry & Machine Co., $1.75 per 100 lbs., $5 each; Curb—F. Jones & Co., Lithonia, 30½ cts. for covers and 55 cts. a lin ft.; Walsh & McAlpin, 27¾ cts. for corners and 75½ cts. per lin. ft; Curbing and Sidewalks—(1) price per sq. yd. (2) ¼ cash, balance in 1, 2, or 3 years at 7% interest; Chattahoochee Brick Co., (1) 41 cts., (2) 45 cts.; Collins Brick Works (1) 42 cts., (2) 47 cts.; Palmer Brick Co. (1) 35½, (2) 39½ cts.:

Sewer Pipe (f. o. b. Atlanta).

Quantities.	V. H. Kreigshorber.	Sciple Sons.
8-in. pipe .....6,000 lin. ft..	$0.45	$0.10
8 × 6-in. Ys ... 240 each...	2.03	.55
10-in. pipe .....2,000 lin. ft..	.65	.14¾
10 × 6-in. Ys .. 100 each...	2.93	.74
12-in. pipe .....10,000 lin. ft..	.85	.19¼
12 × 6-in. Ys .. 600 each...	3.83	.94
15-in. pipe .....7,000 lin. ft..	1.25	.285
15 × 6-in. Ys .. 320 each...	5.63	1.35
18-in. pipe .....3,000 lin. ft..	1.70	.38¾
18 × 6-in. Ys .. 280 each...	7.65	1.85
20-in. pipe .....1,000 lin. ft..	2.25	.50
20 × 6-in. Ys .. 40 each...	10.13	2.50
22-in. pipe .....1,000 lin. ft..	2.75	.62
22 × 6-in. Ys .. 40 each...	12.38	3.05
24-in. pipe .....2,000 lin. ft..	3.25	.73
24 × 6-in. Ys .. 120 each...	14.63	3.65
Total	$48,602	$10,968
Discount of 78%	37.910	.....
Final total	$10,692	$10,968

For constructing trunk and lateral sewers; city to furnish cement, pipe and castings; (1) bid of Collins Brick Works, (2) Frank Lake, (3) H. W. Grant, all of Atlanta; (4) A. J. Dunn, River Side, Ala.:

	1.	2.	3.	4.
Brick .....2,000,000.....	$9.83	$9.50	$10.00	$11.75
Rub. masry .. 2,000 cu. yds.	1.50	2.15	2.25	2.50
Cut stone .... 100 cu. ft..	1.75	2.10	2.10	2.25
Flagging .... 200 sq. ft..	.75	1.05	1.00	1.25
Lumber .....50,000 ft.,B.M.	13.00	9.00	9.25	14.00
Excavation:				
Under 10 ft. 15,000 cu. yds.	.30	.31	.31	.31
" 15 " 25,000 " "	.45	.44	.44	.44
" 20 " 2,000 " "	.55	.55	.52	.52
" 25 " 100 " "	.65	.75	.63	.63
" 30 " 100 " "	.75	1.00	.70	.71
Rock ..... 1,000 " "	1.00	.90	.90	.90
Concrete ..... 200 " "	2.00	2.00	2.10	3.00
Pipe:				
8, 10 & 12"..18,000 lin. ft..	.05	.05	.055	.025
15 & 18"....10,000 " "	.06	.06	.065	.035
20, 22 & 26" 4,000 " "	.08	.07	.085	.048
Total	$43,845	$44,175	$45,451	$49,114

ENGINEERING MATERIAL PRICES

TRACK FASTENINGS—
New York: Quotations at mill—Steel splice bars, 1.75 to 1.80 cts.; spikes, 1.85 to 2 cts.; bolts, square nuts, 2.65 to 2.70 cts.; hexagon nuts, 2.75 to 2.85 cts.
Chicago—Steel splice bars, 2 cts.; spikes, 2.50 cts.; bolts, square nuts, 2.95 to 3.10 cts.; hexagon nuts, 3.10 to 3.25 cts.

RAILS, STEEL—
New York quotations at mill.—New, $28 (heavy); girder, $33 to $33.50; old iron, f. o. b. New York, $23 to $24; old steel, f. o. b. New York, $19.50 to $20.50; relayers, $25 to $27.
Chicago—New, $28, standard sections; light rails, $35 to $40, according to weight; old iron, $24 to $24.50; old steel, mixed lengths, $18 to $18.50; old steel, long lengths, $23.50 to $24; heavy relaying, $31 to $31.50.
Pittsburg—Standard section, $28; for re-rolling, $23.50 to $24 gross ton.

STRUCTURAL MATERIALS—
New York quotations at tide water.—Beams, 1.75 to 2 cts.; channels, 1.75 to 2 cts.; tees, 1.80 to 2 cts.; angles, 1.75 to 2 cts.; zees, 1.75 to 2 cts.
Chicago quotations at mill.—Beams channels 15-in. and under, 1.75 to 1.90 cts.; 18 ins. and over, 1.85 to 2 cts.; tees, 1.80 to 1.90 cts.; angles, 1.75 to 1.90 cts.
Pittsburg—Beams and channels, up to 15-in., 1.60 cts.; over 15-in., 1.70 cts.; tees, 1.65; zees, 1.60 cts.; angles, 3 × 2 up to 6 × 6 ins., 1.60 cts.

PLATES AND SHEETS—
New York quotations at t. w.—Universal plates, 1.75 to 1.80 cts.; tank, 2.10 cts.; flange, 2.20 cts.; firebox, 2.35 to 2.40 cts.; sheets, 3.16 and ½-red, 2.50 to 2.60 cts.; blue, annealed, 2.50 to 2.60 cts.
Chicago—Universal mill plates, 2 to 2.25 cts.; tank, ¼-in. and heavier, 1.75 to 2 cts.; flange, 1.85 to 2.10 cts.; marine, 2.10 to 2.20 cts.; f. o. b. Chicago, tank, ¼-in. and heavier, 2.20 to 2.30 cts.; tank, 3-16-in. and No. 8, 2.30 to 2.45 cts.; flange, 2.50 to 2.60 cts.; sheets, black and galvanized, No. 20, 2.50 to 2.55 cts.; Nos. 22 to 24, 2.55 to 2.65 cts.; No. 26, 2.65 to 2.75 cts.; No. 27, 2.75 to 2.85 cts.; No. 28, 2.85 to 2.95 cts.; firebox, 2 cts. (mill shipment).
Pittsburg, f. o. b.—Universal mill and sheared plates, 1.65 to 1.85 cts.; tank, ¼-in. and heavier, 100 ins. wide, 1.60 cts. at mill; flange and boiler steel, 1.70 cts.; locomotive firebox, 2.10 to 3 cts.; marine ordnance firebox, 1.80 cts.; still bottom, 1.90 cts.; sheets, Nos. 22 and 24, box annealed, 2.45 cts.; No. 26, 2.55 cts.; No. 27, 2.65 cts.; No. 28, 2.75 cts.

MERCHANT STEEL—
New York quotations at mill.—Machinery smooth finish, 2 to 2.11½ cts.; tire, smooth finished, 1.96½ to 2.11½ cts.; spring open hearth, 2.66½ to 2.76 cts.; tool, ordinary grades, 6½ to 8 cts.; specials, 12 cts. up.
Pittsburg quotations at mill.—Steel bars, 1.60 cts. in carload lots.

IRON—
Pig Iron:
New York—Northern foundry, tidewater, No. 1, X, $24 to $25; No. 2, X, $22 to $23; No. 2, plain, $21.50 to $22; Gray forge, $20.50 to $20.75; Tenn. and Ala., No. 1 foundry, $24 to $24.50; No. 2 foundry, $22.75 to $23; No. 3 foundry, $21.75 to $22.25; Southern foundry, No. 1, $23.50 to $24.50; No. 2, $22 to $23; No. 3, $21 to $22; No. 4, $20 to $21; soft, No. 1, $23.50 to $24; No. 2, $21 to $22.
Chicago, f. o. b. Chicago—Lake Superior charcoal, $26.50 to $27.50; local coke foundry, No. 1, $24 to $25; No. 2, $23 to $24; No. 3, $22 to $23; local Scotch, No. 1, $24.50 to $25; Ohio strong softeners, No. 1, $26.30 to $27.30; Southern Silvery, $26.15 to $27.15; Southern coke, No. 1, $23.85 to $24.35; No. 2, $22.85 to $23.35; No. 3, $21.85 to $22.35; No. 1 soft, $23.85 to $24.35; No. 2 soft, $22.85 to $23.35; foundry forge, $21.35 to $21.85; Southern Gray forge, $20.35 to $20.85; mottled, $19.35 to $19.85; charcoal softeners, $25.85 to $27.85; Alabama and Georgia car wheel, $28.35 to $28.85; malleable Bessemer, $23 to $24; standard Bessemer, $24 to $24.50; Jackson county and Kentucky Silvery, 6 to 8% silicon, $31.30 to $32.30.
Pittsburg—Basic, $21.50; Bessemer, $21.50 to $22 at furnace; forge iron, $20.75 to $21; foundry No. 2, $22.75 to $23.50.
Bar Iron:
New York—Refined, on dock, 1.85 to 1.90 cts.; common, on dock, 1.75 to 1.80 cts.; soft steel, 1.80 to 1.90 cts.
Chicago—Steel, 1.73½ cts base; shorter deliveries local mills, 1.85 to 1.90 cts.; refined, 1.93½ to 1.95 cts., carload lots.

GENERAL MATERIALS—
Lead, spot, New York, 4.12½ cts.
Spelter, St. Louis, spot, 5 to 5.10 cts.
Copper, spot to May, standard, 12.87½ cts.; Lake, 13.37½ to 13.62½ cts.; electrolytic, 13.37½ to 13.62½ cts.; casting, 13.12½ to 13.50 cts.

LUMBER—
New York:
Hemlock, Penn., joists, 12 to 40 ft., $16.50 to $24.50 per M.; boards, 13 to 16 ins., $17.50 to $18.50.
Spruce, Eastern, delivered New York, $20 to $23; random cargoes, narrow, $18 to $19; wide, $20 to $22; piling, Eastern, 5½ cts.
Yellow pine, random cargoes, sail deliveries, N. Y., $23 to $24.

COAL-STORAGE HOUSES, ETC.

PROPOSALS for the Construction of Coal-Storage Houses, Trestle Approaches, Inclines and Tracks, for the Eastern Pumping Station, on the Water-Works Grounds, near California, O., and for the Western Pumping Station, in Cincinnati, O.

Sealed proposals will be received at the office of the Board of Trustees, "Commissioners of Water-Works," of the City of Cincinnati, O., until 12 o'clock noon of Tuesday, March 17, 1903, for the construction of the Coal-Storage Houses, Trestle Approaches, Inclines and Tracks, for the Eastern Pumping Station, located on the Water-Works Grounds near the village of California, in Hamilton County, O., and for the Western Pumping Station, located east of Lumber St., and between Eastern Ave. and the Ohio River, in the City of Cincinnati, Hamilton County, O., in accordance with plans, specifications, and detail drawings on file in the office of the Chief Engineer of the Board of Trustees, "Commissioners of Water-Works."

The same to be paid for as stipulated in the form of contract for the performance of the above work, and which form of contract is on file in the office of the Board of Trustees, "Commissioners of Water-Works."

Plans and detail drawings of the work can be seen, and copies of the specifications, form of proposal, forms of bonds and form of contract can be secured, at the office of the Chief Engineer of the Board of Trustees, "Commissioners of Water-Works."

Bidders must enclose their bids in sealed envelopes, and deposit the same with the Clerk of the Board of Trustees, "Commissioners of Water-Works," before Tuesday, the 17th day of March, 1903, at 12 o'clock m., and such sealed envelopes must have endorsed thereon the nature of the bid and the name and address of the bidder.

Bids will be opened on Tuesday, the 17th day of March, 1903, at 12 o'clock m., at the office of the Board of Trustees, "Commissioners of Water-Works."

Each bid shall be accompanied with a bond in the sum of $7,500, and signed by two sureties, for the acceptance of the contract, if awarded by the Board of Trustees, "Commissioners of Water-Works," or the bidder may deposit with the Board of Trustees, "Commissioners of Water-Works," in lieu of such bond a certified check or bank certificate of deposit payable to the order of the Board of Trustees, "Commissioners of Water-Works," or cash equal in amount to the bond as above required.

Bidders must furnish satisfactory evidence of their ability to do the class of work required.

Bidders must use the printed forms, as none other will be received.

The Board of Trustees, "Commissioners of Water-Works," reserve the right to reject any and all bids.

By direction of the Board of Trustees, "Commissioners of Water-Works."

AUG. HERRMANN, President.
CHAS. G. ROTH, Clerk. 8-1t 10-1t

IMPROVEMENT OF DELAWARE RIVER.—U. S. Engineer Office, Philadelphia, Pa., March 2, 1903.—Sealed proposals for Removing Rock and overlying and adjacent material in Delaware River, at Schooner Ledge, will be received here until 12 o'clock noon, April 2, 1903, and then publicly opened. Information furnished on application. C. W. RAYMOND, Lieut.-Col., Engrs. 10-4t

U. S. ENGINEER OFFICE 2001 I St., N.W., Washington, D.C., Feb. 27, 1903.—Sealed proposals for Reconstruction of Pier No. 5 of Aqueduct Bridge across Potomac River, at Georgetown, D.C., will be received here until 12 m., March 30, 1903, and then publicly opened. Information furnished on application CHAS. J. ALLEN, Lieut.-Col., Engrs. 10-4t

U. S. ENGINEER OFFICE, Wheeling, W. Va., Feb. 21, 1903.—Sealed proposals for furnishing and delivering about 32,000 barrels of American Portland Cement for Ohio River Dams will be received here until 11 a. m. (Eastern time), March 23, 1903, and then publicly opened. Information furnished on application. W. E. CRAIGHILL, Capt., Engrs. 9-4t

U. S. ENGINEER OFFICE, Loveman Bldg., Chattanooga, Tenn., March 2, 1903.—Sealed proposals for constructing the upper section of the Colbert and Bee Tree Shoals Canal, on the Tennessee River, will be received at this office until noon, April 11, 1903, and then publicly opened. Specifications, blank forms, and all available information will be furnished on application. JOHN G. D. KNIGHT, Maj. Corps of Engrs. 10-4t

PROPOSALS FOR TAINTER GATES, ETC.—U. S. Engineer Office, Bank of Minnesota Bldg., St. Paul, Minn., Feb. 5, 1903.—Sealed proposals for 12 Steel Tainter Sluice Gates and accessories, also Steel Hinges and accessories for 1 Bear Trap Log Sluice Gate will be received here until 2 p. m. (Central Standard Time) March 7, 1903, and then publicly opened. Information furnished on application. Maj. R. L. HOXIE, Engrs. 7-4t

PROPOSALS, pages 127, 128, XXX., XXXI.

Note The New Advertisements Pages XXIV to XXIX

You may be Interested in Some of them

Do You Want to Purchase Supplies?—All the Prominent Manufacturers Read Engineering News.

ADVERTISE FOR BIDS IN THIS PAPER AND SECURE DESIRABLE COMPETITION.

STREET LIGHTING.

City Clerk's Office,
Binghamton, N. Y., Mar. 2, 1903.

Notice is hereby given that the City of Binghamton, N. Y., will receive up to March 31st, 1903, at 8 p.m., sealed proposals for Furnishing, Lighting, Supplying Illuminant and Mantles and Caring for 318, or more, Incandescent Gas or Naphtha Street Lamps of 60 candle-power, within said City, from June 4, 1903, under the following conditions: Proposals must be for 1, 3, 5 and 7 years, sealed and addressed to I. C. Hull, City Clerk. Price for gas and naphtha lamps must be stated separately, the City reserving the right to use either naphtha or gas at its option, but gas not to be ordered unless gas main is on the street. The contractor will make all gas connections, furnish all materials for lighting, including posts, lamps, mantles, gas and naphtha, and will light, keep clean and in good repair all lamps, which will be required to burn from dusk until daylight every night, with pro rata deductions for outages. When lamps are located by the City, any change in the location shall be at the expense of the City, unless such change shall be ordered by reason of the supplanting of the light ordered changed by an electric light, in which case the change will be at the expense of the contractor. The contractor will state in his proposal whether he will sell to the City at the expiration of the contract the lamps and posts furnished by him and at what price, the purchase to be optional with the City. All bills rendered in due form on the 1st of the month, unless disputed, will be audited and paid on or before the 15th of the said month. A certified check or New York draft for $250 must accompany bid as a guaranty that contract will be entered into, if awarded. A bond of $5,000, with sureties to be approved by the Mayor, must be given when contract is executed, conditioned for the faithful performance of the contract and to protect the city from any claim for infringement of patents. The right to reject any or all bids is reserved.

I. C. HULL,
City Clerk.

10-2t

U. S. ENGINEER OFFICE, Montgomery, Ala., March 5, 1903.—Sealed proposals for Dredging at West Pass entrance to Apalachicola Bay, Fla., and East Pass entrance to Carrabelle Harbor, Fla., will be received here until April 4, 1903, and then publicly opened. All information furnished on application. R. R. RAYMOND, 1st Lieut., Engrs. 10-4t

SEWERAGE SYSTEM.

Sealed proposals will be received until 4 p.m. March 24, 1903, for the construction of Sections 2, 3 and 4 of the New Britain Sewerage System. Section 2 consists of a tunnel 1,048 ft. long and approaches, 680 ft. of 24-in. pipe, complete. Section 3 consists of about 1,300 ft. of 24-in. sewer pipe and about 300 ft. of smaller sizes, together with manholes complete. Section 4 consists of about 9,000 ft. of 24-in. pipe and about 400 ft. of small sizes with manholes complete. All as set forth in the plans and specifications for said work. A certified check for $1,000 must accompany the bid for each section and a surety company's bond for $5,000 will be required for the successful bidder for each section, or one bond of equal amount covering all the sections.

Plans, specifications and blank forms of proposals may be obtained at the office of W. H. Cadwell, Engineer, 213 Main St., New Britain, Conn., after March 5, 1903.

The right is reserved to reject any and all bids as may appear to be for the best interest of the City.

BOARD OF SEWER COMMISSIONERS.
S. H. STEARNS, Chairman.
E. H. BEACH,
J. HEALY.
Address W. H. CADWELL, C. E. 10-3t

WATER TOWER.

Marshall, Tex., Feb. 21, 1903.

Sealed proposals for a Steel Water Tower to be erected at this City, will be received at the office of the City Council until 8 o'clock p. m. Wednesday, March 18, 1903. Plans, specifications and form of contract, bond and proposal may be seen at the offices of the Engineer, and be had on application to the Secretary, accompanied by a deposit of $5 until return of the plans, etc., or upon submission of proposal. A certified check in the sum of $500, made payable to the City of Marshall, must accompany each proposal. The right is reserved to reject any or all proposals or to accept any proposal.

T. D. SEDBERRY,
T. HOWARD BARNES, Engr., Secretary.
7 Water St., Boston, Mass.;
Jacksonville, Tex. 10-1t

U. S. ENGINEER OFFICE, Galveston, Tex., Feb. 23, 1903.—Sealed bids, in triplicate, for Improving Aransas Pass, Tex., by removing part of old jetty, will be received until 2 p.m. March 25, 1903, and then publicly opened. For information apply to C. S. RICHE, Capt., Engrs. 9-4t

C.-I. WATER PIPE AND SPECIAL CASTINGS.

Cleveland, O., Feb. 11, 1903.

Sealed proposals will be received at the office of the Clerk of the Board of Control, No. 105 City Hall, until 12 o'clock m., March 12, 1903, for furnishing and delivering such Cast-iron Water Pipe and Special Castings, from 3-in. to 48-in., inclusive, as may be required during the year 1903, by the Water Works Division of the Department of Public Works, of the City of Cleveland, O.

Specifications may be seen and blank proposals can be obtained at the office of the Superintendent of Water-Works.

Each proposal must contain the full name of the party or parties making the same and all persons interested therein, and must be accompanied by a certified check for five thousand ($5,000) dollars, payable to the Director of Public Works, on a solvent bank in the city, as surety that if the proposal be accepted a contract will be entered into.

No proposal will be entertained unless made on the blanks furnished by the Superintendent of Water-Works and delivered at the office of the Clerk of the Board of Control, No. 105 City Hall, previous to 12 o'clock m. on the day specified.

The City reserves the right to reject any or all bids.

CHAS. P. SALEN,
8-3t Director of Public Works.

MASONRY DAM.

The Union Power & Mfg. Co. will receive bids at Union, S. C., on Saturday, March 21, at noon, for the Construction of a Rubble Masonry Dam, containing about 9,000 cu.yds.; a Concrete Masonry Power House, containing about 4,000 cu. yds., and two (2) Earth Dams, containing about 19,000 cu. yds. Plans and specifications may be seen at Union, S.C. The right is reserved to reject any and all bids.

10-1t

U. S. ENGINEER OFFICE, Army Bldg, New York, Feb. 23, 1903.—Sealed proposals for Dredging in Harlem River, N. Y., will be received here until 12 m., March 25, 1903, and then publicly opened. Information furnished on application. S. M. MANSFIELD, Col., Engrs. 9-4t

U. S. ENGINEER OFFICE, Winthrop Bldg., Boston, Mass., Feb. 14, 1903.—Sealed proposals for repairing Breakwater at Burlington, Vt., will be received here until 12 m., March 16, 1903, and then publicly opened. Information furnished on application. HARRY TAYLOR, Capt., Engrs. 8-4t

U. S. ENGINEER OFFICE, Wilmington, Del., Feb. 14, 1903.—Sealed proposals will be received here until 12 o'clock noon, March 16, 1903, and then publicly opened, for construction of Wing Dams on Rancocas River, N. J. Particulars on application. JARED A. SMITH, Col., Engrs. 8-4t

U. S. ENGINEER OFFICE, 537 Congress St., Portland, Me., Feb. 10, 1903.—Sealed proposals for Dredging and Rock Excavation in Carver's Harbor, Me., will be received here until 12 m., March 12, 1903, and then publicly opened. Information furnished on application. S. W. ROFSSLER, Major, Engrs. 7-4t

U. S. ENGINEER OFFICE, Portland, Ore., Feb. 3, 1903.—Sealed proposals will be received here for Constructing Dipper Dredge, complete, or for Dredging Machinery only, for work of Improving Willamette and Yamhill rivers, until 11 a.m., March 16, 1903, and then publicly opened. Information on application. W. C. LANGFITT, Capt., Engrs. 7-3t 11-1t

U. S. ENGINEER OFFICE, Duluth, Minn., Feb. 7, 1903.—Sealed proposals for Building in place the Concrete South Pier at Superior Entry, Wis., will be received here until noon, March 9, 1903, and then publicly opened. Information on application. D. D. GAILLARD, Capt., Engrs. 7-4t

U. S. ENGINEER OFFICE, St. Augustine, Fla., Feb. 10, 1903.—Sealed proposals for constructing Training Walls in St. John's River, Fla., will be received here until 12 noon, March 10, 1903, and then publicly opened. Information furnished on application. FRANCIS R. SHUNK, Capt., Engrs. 7-4t

U. S. ENGINEER OFFICE, Buffalo, N. Y., Feb. 3, 1903.—Sealed proposals for Pier Extension at Little Sodus Bay, N.Y., and Breakwater Extension at Cape Vincent, N. Y., will be received here until 11 a. m., March 5, 1903, and then opened. Information furnished on application. T. W. SYMONS, Major, Engrs. 7-4t

U. S. ENGINEER OFFICE, Portland, Ore., Feb. 3, 1903.—Sealed proposals will be received here for Constructing Dipper Dredge, or for Dredging Machinery only, for work of Improving Upper Columbia and Snake rivers, until 11 a. m., March 16, 1903, and then publicly opened. Information on application. W. C. LANGFITT, Capt., Engrs. 7-3t 11-1t

U.S. ENGINEER OFFICE, 2001 I St., N.W., Washington, D. C., Feb. 6, 1903.—Sealed proposals for construction of a Highway Bridge across Potomac River at Washington, D. C., will be received here until 12 m., March 27, 1903, and then publicly opened. Information furnished intending bidders on application. CHAS. J. ALLEN, Lieut-Col., Engrs. 7-4t

U. S. ENGINEER OFFICE, St. Augustine, Fla., Feb. 16, 1903.—Proposals for Building and Equipping a Steel Hull, Stern Wheel Combined Dredge and Snagboat, will be received here until 11 a. m., April 17, 1903, and then opened. Information furnished on application. FRANCIS R. SHUNK, Capt. Engrs.

8-1t 10-1t 12-1t 14-1t

PROPOSALS, pages 127, 128, XXX.

CONTINUED FROM PAGE XVIII.

ADVERTISERS' CLASSIFIED DIRECTORY.

CONTINUED ON PAGE XL.

Lawrence Cement Co, 1 Broadway, New York
Lehigh Portland Cement Co, Allentown, Pa
Sinclair & Babson, 45 Broadway, New York
Snyder, Hiram, & Co, 229 Broadway, New York
St Louis Portland Cement Co, St Louis
Thorn Cement Co, 112 Church st, Buffalo, N Y
Vulcanite Portland Cement Co, 160 Fifth ave, N Y
Warner, Chas, Co, Wilmington, Del

Cement (Rosendale.)
Consolidated Rosendale Cem. Co, 26 Cortlandt st, N Y
Coplay Cement Mfg Co, 1128 Broadway, N Y
Cumberland (Md.) Cement & Mfg Co, P O Box 264
Meacham & Wright, Chamber of Commerce, Chicago
Milwaukee Cement Co, Milwaukee, Wis
Snyder, Hiram, & Co, 229 Broadway, New York
Tomkins, Calvin, 120 Liberty st, New York
Union Akron Cement Co, 141 Erie st, Buffalo, N Y
Western Cement Co, Louisville, Ky

Cement Kilns and Machinery
Allis-Chalmers Co, Home Ins bldg, Chicago
Bartlett, C O, & Snow Co, Cleveland, Ohio
Bonnot Co, Canton, Ohio
Bradley Pulverizer Co, 92 State st, Boston, Mass
Clark, J C, Box 325, Atlanta, Ga
Dodge Mfg Co, Mishawaka, Indiana
Kent Mill Co, 170 Broadway, New York
Jeffrey Mfg Co, Columbus, Ohio
Smidth, F L, & Co, 66 Malden Lane, New York
Sturtevant Mill Co, 106 Clayton st, Boston
Vulcan Iron Works, Wilkesbarre, Pa
West Pulverizing Mach. Co, Jersey City, N J

Cement Mixer.
Alexander Iron Works, Syracuse, N Y

Chains.
Newhall Chain Forge & Iron Co, 9 Murray st, N Y

Chain-Making Machinery.
Turner, Vaughn & Taylor, Cuyahoga Falls, Ohio

Channelers.
Ingersoll-Sergeant Drill Co, 26 Cortlandt st, N Y
Sullivan Machinery Co, 135 Adams st, Chicago, Ill

Chemists.
McKenna, Chas. F, 221 Pearl st, N Y
(see also Laboratories.)

Chimneys. (Brick.)
Custodis, A, Chimney Const'n Co, Bennett bldg, N Y

Coal and Ore Handling Machinery.
Aultman Co, Canton, Ohio
Bacon, Earle C, 26 Cortlandt st, New York
Berquist, A S, 515 Bedford ave, Brooklyn, N Y
Brown Hoisting Machinery Co, Cleveland, O
Exeter Machine Works, Pittston, Pa
Hayward Co, 97 Cedar st, New York
Hunt, C W, Co, Richmond Terrace, W N Brighton, NY
Jeffrey Mfg Co, Columbus, Ohio
King Bridge Co, Cleveland, Ohio
Lambert Hoisting Engine Co, Newark, N J
Lidgerwood Mfg Co, 96 Liberty st, N Y
Link Belt Engineering Co, Nicetown, Phila
Main Belting Co, 1219 Carpenter st, Philadelphia
Mead, John A, & Co, 7 Broadway, New York
N. J. Foundry & Machine Co, 9 Murray st, New York
Rawson & Morrison Mfg Co, Cambridgeport, Mass
Robins Conveying Belt Co, 14-21 Park Row, N Y
Steubner G L, 175 Third st, Long Island City, N Y

Colleges (Engineering.) (see page IV.)

Concentrators.
Allis-Chalmers Co, Home Ins bldg, Chicago

Concrete Mixers.
Clyde Iron Works, Duluth, Minn
Cockburn Barrow & Mach. Co, Jersey City, N J
Contractor's Plant Co, 37 Pittsburg st, Boston
Drake, C T, 310 W Jackson Boulevard, Chicago
Fisher & Saxton Co, 128 G st, N E, Washington
Iroquois Iron Works, Buffalo
Kaltenbach & Griess, 1618 Williamson bldg, Cleveland
McKelvey Concrete Mach'y Co, Security bldg, Chicago
Municipal Eng & Contr'g Co, Manhattan bldg, Chicago
Ransome Concrete Mach'y Co, 11 Broadway, N Y
Smith, T L, 134 Tenth st, Milwaukee

Condensers
Alberger Condenser Co, 95 Liberty st, N Y
Allis-Chalmers Co, Home Ins bldg, Chicago
Davidson M T, 58 Keap st, Brooklyn, N Y
Dean Bros, Steam Pump Works, Indianapolis, Ind
Epping-Carpenter Co, Pittsburg
Guild & Garrison, So 10th st, Brooklyn, N Y
Stilwell-Bierce & Smith-Vaile Co, Dayton, O
Worthington, Henry R, Brooklyn, N Y

Conduits (Pipe.)
American Vitrified Conduit Co, 170 Broadway, N Y
Blackmer & Post Pipe Co, St. Louis, Mo
Camp, H B, Co, 170 Broadway, New York
Eppinger & Russell Co, 66 Broad st, New York
Standard Vitrified Conduit Co, 39 Cortlandt st, N Y
U S Fireproofing Corp., Keystone bldg, Pittsburg
Wyckoff Pipe & Creosoting Co, Portsmouth, Va

Contractors.
Abbot-Gamble Contracting Co, St. Louis and N Y
American Pipe Mfg Co, 112 N Broad st, Philadelphia
Bates & Rogers Const'n Co, 1206 Manhattan bldg, Chic
Cook Well Co, St. Louis, Mo
Eastern Construction Co, 48 Classon ave, Brooklyn, NY
Eichleay, John, Jr, Co, Pittsburg
Esson, W A, & Co 1137 Stock Exchange bldg, Chicago
Foundation & Contracting Co, 37 Nassau st, New York
Gest, G M, Cincinnati and New York
Gillespie, T A, Co, Westinghouse bldg, Pittsburg, Pa
McCabe, Jas. F, 504 Equitable bldg, Baltimore, Md
McMullen, Arthur & Co, 13-21 Park Row bldg, N Y
O'Rourke, John F, Park Row bldg, New York
Phillippine Eng & Const'n Co, P.O. Box 572, Manila, P.I.
Phillips & Worthington, 11 Broadway, New York
Quigley, R M, & Co, Laclede bldg, St. Louis, Mo
Snare & Triest, 39 Cortlandt st, New York
United Eng & Con Co, 13-21 Park Row, New York
(see also Artesian Wells; Asphalt Paving; Bridges; Dredging; Wharf and Pier Builders.)

Contractors' Tools and Supplies.
Bond, H L, & Co, Pearl & Purchase sts, Boston, Mass
Crane & Co, Inc, A M, The Rookery, Chicago
National Drill & Mfg Co, 159 La Salle st, Chicago
Shannon, J Jacob, & Co, 1744 Market st, Philadelphia

Conveyors. (See Hoisting and Conveying Machinery; also see Trench Machines.)

Cooling Towers.
Alberger Condenser Co, 95 Liberty st, New York
Davidson, M T, 58 Keap st, Brooklyn, N Y
Worthington, Henry R, Brooklyn, N Y

Cranes.
Am. Hoist & Derrick Co, St. Paul, Minn
Brown Hoisting Machinery Co, Cleveland, O
Bucyrus Co, S Milwaukee, Wis
Case Mfg Co, Columbus, Ohio
Chicago Pneumatic Tool Co, Fisher bldg, Chicago
Industrial Works, Bay City, Mich
Kaltenbach & Griess, 1618 Williamson bldg, Cleveland
King Bridge Co, Cleveland, Ohio
Manning, Maxwell & Moore, 85 Liberty st, New York
Marion Steam Shovel Co, Marion, Ohio
Niles Tool Works Co, 136-138 Liberty st, New York
Pawling & Harnischfeger, 167 Clinton st, Milwaukee
Wood, R D, & Co, Philadelphia, Pa

Cranes (Portable).
North Penn Iron Co, 3d & Sedgley ave, Philadelphia

Creosoting.
American Creosote Works, New Orleans
Atlantic Creo & Wood Pres Works, Norfolk, Va
Carbolineum Wood Preserving Co, 13 Park Row, N Y
Eppinger & Russell Co, 66 Broad st, New York
International Creosoting & Con. Co, Galveston, Tex
New Orleans Wood Pres Works, New Orleans, La
Norfolk Creosoting Co, Norfolk, Va
U S Wood Preserving Co, 29 Broadway, New York
West Pascagoula Creosote W'ks, W Pascagoula, Miss
Wyckoff Pipe & Creosoting Co, Portsmouth, Va

Crucibles.
Dixon, Jos., Crucible Co, Jersey City, N J

Curb and Gutter (Combined.)
Steel Prot'd Concrete Co, Real Est Trust bldg, Phila

Damper Regulators.
d'Este, Julian Co, 15 Canal st, Boston

Derrick and Derrick Fittings.
American Hoist & Derrick Co, St. Paul, Minn
Byers, John F, Machine Co, Ravenna, Ohio
Contractors' Plant Mfg Co, 130 Erie st, Buffalo, N Y
Dobbie Foundry & Machine Co, 138 Dey st, N Y
Hayward Co, 97 Cedar st, New York
Kaltenbach & Griess, 1618 Williamson bldg, Cleveland
Lambert Hoisting Engine Co, Newark, N J

Diamond Drills.
American Diamond Rock Drill Co, 95 Liberty st, N Y
Sullivan Machinery Co, 135 Adams st, Chicago

Differential Hoists.
Boston & Lockport Block Co, Boston, Mass

Ditching and Excavating Machinery.
Atlantic, Gulf & Pacific Co, Park Row bldg, N Y
Beatty, M, & Sons, Welland, Ont
Bucyrus Co, S. Milwaukee, Wis
Hayward Co, 97 Cedar st, New York
Marion Steam Shovel Co, Marion, Ohio
Osgood Dredge Co, Albany, N Y
Souther, John, & Co, 12 Post Office Square, Boston
Toledo Foundry & Machine Co, Toledo, Ohio
Vulcan Iron Works, Chicago
Vulcan Iron Works Co, Toledo
Western Wheeled Scraper Co, Aurora, Ill

Diver.
Falcon, Jos. G, 1110 Ayres Court, Evanston, Ill
Lowe Wrecking & Diving Co, 2 Coenties slip, N Y

Diving Apparatus.
Morse, Andrew J, & Son, 140 Congress st, Boston
Schrader's, A, Son, 32 Rose st, New York

Docks (Composite and Steel Floating).
Crandall, H I, & Son Co, East Boston, Mass

Doors and Door Fittings.
Kinnear Mfg Co, Columbus, Ohio
N. J. Foundry & Machine Co, 9 Murray st, N Y
Wilson, J Godfrey, 3 W 29th St, N Y

Drafting Tables.
Hein Furniture Co, Toledo, O

Draftsmen's Supplies. (see Instruments.)

Drain Tile (see Pipe, Vitrified Clay.)

Dredging and Dredging Machinery.
Atlantic, Gulf & Pacific Co, Park Row bldg, N Y
Beatty, M, & Sons, Welland, Ont
Bowers, A B, San Francisco, Cal
Bucyrus Co, S Milwaukee, Wis
Dredging & Filling Co, 15 Cortlandt st, New York
Edwards, Jos., & Co, 414 Water st, New York
Ellicott Machine Co, Baltimore, Md
Falcon, Jos, G, 1110 Ayres Court, Evanston, Ill
Featherstone Fdy & Mach Co, 348 N. Halsted, Chicago
Hayward Co, 97 Cedar st, New York
Lawrence Machine Co, Lawrence, Mass
Marion Steam Shovel Co, Marion, Ohio
Morris Machine Works, Baldwinsville, N Y
Mundy, J S, Newark, N J
New York Dredging Co, 13-21 Park Row, N Y
Osgood Dredge Co, Albany, N Y
Smith, Tredwell, & Bro, Jersey City, N J
Toledo Foundry & Machine Co, Toledo, Ohio
Vulcan Iron Works Co Toledo

Drilling and Boring Machines (Portable).
Knight Mfg Co, Canton, Ohio
Philadelphia Pneumatic Tool Co, Philadelphia
Stow Flexible Shaft Co, 26th & Callowhill sts, Phila
Stow Mfg Co, Binghamton, N Y
(see also Pneumatic Tools; also Rock Drills.)

Drop Forgings.
Keystone Drop Forge Wks, 2001-63 Clearfield st, Phila

Drop Hammers.
Merrill Bros, 467 Kent ave, Brooklyn, N Y

Dry Docks (Marine Railway).
Crandall, H I, & Son Co, East Boston, Mass

Dryers (Cement).
American Process Co, 62 William st, New York
Bartlett, C O, & Snow Co, Cleveland, O
Crown Dryer Co, 129 Euclid ave, Cleveland
Cummer, F D, & Son Co, Cleveland, O
Ruggles Coles Engineering Co, 41 Cortlandt st, N Y
West Pulverizing Machine Co, Jersey City, N J

Dynamite (see Explosives).

Dynamos.
C & C Electric Co. Central R R bldg, New York
Coho & Co, H B, 111 Liberty st, New York
General Electric Co, Schenectady, N Y
Storey Motor & Electric Co, Harrison, N J
Stow Mfg Co, Binghamton, N Y
Westinghouse Electric & Mfg Co, Pittsburg, Pa

Economizers (Fuel).
Green Fuel Economizer Co, Matteawan, N Y
Broomell, Schmidt & Steacy Co, York, Pa

Electric Storage Batteries.
Electric Storage Battery Co, Philadelphia

Elevators.
Marine Engine & Machine Co, 1123 Broadway, N Y
Morse Elevator Works, Philadelphia
Otis Elevator Co, 71 Broadway, N Y

Employment Bureaus.
Boston Engineering Agency, 7 Water st, Boston
Brotherhood Steam Shovel & Dredge Engrs., Chicago
Cleveland Engineering Agency, Box 71, Sta. B, Cleve
Engineering Employment Bureau, Syracuse N Y
Hapgood Bureau, 257 Broadway, N Y
New York Engineering Agency, 35 Warren st, N Y

Engines. (Gas and Gasoline).
American Well Works, Aurora, Ill
Backus Water Motor Co, Newark, N J
Chase Machine Co, Cleveland
Dayton Globe Iron Work Co, 7 Ludlow st, Dayton, O
Fairbanks, Morse & Co, Chicago, Ill
Mietz & Weiss, 128 Mott st, New York
New Era Iron Work Co, 37 Dale ave, Dayton, O
Otto Gas Engine Works, Philadelphia, Pa
Snow, T W, (Otto Engine) 360 Dearborn st, Chicago
Springfield Gas Engine Co, Springfield, O
Struthers-Wells Co, Warren, Pa
Temple Pump Co, 15th Place, Chicago
U. S. Wind Eng. & Pump Co, 20 Water st, Batavia, Ill
(see also Engines, Oil.)

Engines (Hoisting).
American Hoist & Derrick Co, St. Paul, Minn
Bacon, Earle C, 26 Cortlandt st, New York
Beatty, M, & Sons, Welland, Ont
Brown Hoisting Machinery Co, Cleveland, O
Byers, John F., Machine Co, Ravenna, Ohio
Carlin's, Thos., Sons, Allegheny, Pa
Chase Machine Co, Cleveland
Contractors' Plant Mfg Co, 130 Erie st, Buffalo, N Y
Fairbanks, Morse & Co, Chicago, Ill
Flory, S, Mfg Co, Bangor, Pa
Hunt, C W., Co, Richmond Terrace, W N Brighton, NY
Lambert Hoisting Engine Co, Newark, N J
Lidgerwood Mfg Co, 96 Liberty st, New York
Montchanin's Machine Works, 813 Carroll ave, Chicago
Mundy, J S, Newark, N J
Potter Mfg Co, 2010 N W ave, Indianapolis, Ind
Rawson & Morrison Mfg Co, Cambridgeport, Mass
Vulcan Iron Works, Wilkesbarre, Pa
(see also Electric Hoists.)

Engines (Marine).
Buffalo Forge Co, Buffalo, N Y
Kingsford Foundry & Machine Works, Oswego, N Y
Morris Machine Works, Baldwinsville, N Y
Otto Gas Engine Works, Philadelphia, Pa

Engines (Oil)
Aultman Co, Canton, Ohio
Mietz & Weiss, 128 Mott st, New York

Engines (Portable).
Buffalo Pitts Steam Roller Works, Buffalo, N Y
Port Huron Engine Co, Port Huron, Mich

Engines (Steam).
Allis-Chalmers Co, Home Ins bldg, Chicago
Brownell & Co, Box 913, Dayton, O
Buffalo Forge Co, Buffalo, N Y
Erie Pump & Engine Co, Erie, Pa
Fairbanks, Morse & Co, Chicago
Featherstone Fdy & Mach Co, 348 N. Halsted, Chicago
Harrisburg Foundry & Mach Co, Harrisburg, Pa
Lawrence Machine Co, Lawrence, Mass
Leffel, Jas, & Co, Springfield, O
Morris Machine Works, Baldwinsville, N Y
Southwark Foundry & Machine Works, Philadelphia
Sturtevant, B F, Co, Boston, Mass
Struthers, Wells & Co, Warren, Pa
Vulcan Iron Works, Wilkesbarre Pa
Watertown Engine Co, Watertown, N Y

Engines (Traction).
Aultman Co, Canton, O
Reisler, Chas. L, Erie, Pa
Kelly O S Co, Springfield, O
Port Huron Engine Co, Port Huron, Mich

GRAVEL ROAD.

NOTICE TO CONTRACTORS.

Toms River, N. J., Feb. 24, 1903.

The Board of Chosen Freeholders of the County of Ocean and State of New Jersey, will receive until 12 o'clock noon, on Tuesday, March 31st, 1903, at the Court House in Toms River, N. J., proposals for building a Gravel Road, from a point near the Village of Lakehurst, in the Township of Manchester, to a point at the intersection of the roads at Archertown school house, in the Township of Plumsted, in length about 54,775 ft. or 10 37/100 miles, to be divided into two sections as follows.

Section 1.—Beginning in the center of the road from Lakehurst to New Egypt at its intersection with line of lands between William Torrey and the Manchester Land Co. and extending along said road 29,000 ft. to Station No. 290.

Section 2.—Beginning at Station No. 290 and extending 25,775 ft. to a point at the intersect'on of the roads at Archertown school house, according to the specifications prepared, and to be seen as below.

Bids to be accompanied by the bidder's bond in the sum of one thousand dollars with security satisfactory to the Board, and conditioned that if the contract shall be awarded to him he will when required by the Board, execute an agreement in writing to perform the work according to the specifications, and that the bidder to whom the contract may be awarded shall in addition to executing the agreement to perform the work according to the specifications, also execute to the Board of Chosen Freeholders a bond conditioned for the faithful performance of the contract, in the sum of 50% of the accepted bid, with such sureties as the Board may approve. The right is reserved to reject all bids. Each section must be bid for separately.

Sealed bids should be endorsed: "Proposals for Building a Gravel Road (naming each section) from a point near Lakehurst to Archertown school house, according to Plans and Specifications made for Board of Chosen Freeholders by William Segoine, Engineer."

Plans, specifications and profile may be seen at the office of Joseph Camp, Chairman of Road Committee, New Egypt, N. J.; Corlies A Wilbur, member of said Committee, Lakehurst, N. J., and at the office of Wm. Segoine, Engineer, Point Pleasant, N. J.

EDMUND BENNETT,
10-2t Director.

U. S. ENGINEER OFFICE, Sioux City, Ia., Feb. 18, 1903.—A Public Sale of Government Property pertaining to improvement of Missouri River, consisting of steamboats, quarterboats, hulls, barges, Nasmyth steam-hammers, pumps, Boilers, capstans, winches and a large quantity of minor articles, and of scrap iron, junk, etc., will be held at Gasconade, Mo., beginning March 27, 1903. List of material furnished on application. H. M. CHITTENDEN, Capt., Engrs. 9-4t

DEPOT Q. M.'s OFFICE, Baltimore, Md., Feb. 19, 1903.—Sealed proposals for constructing Sea Wall, Filling, etc., at Fort Howard, Md., will be received here until 11 a. m., March 20, 1903. Information furnished on application. U. S. reserves right to accept or reject any or all proposals. Envelopes containing proposals should be marked "Proposals for Constructing Sea Wall, Filling, Etc.," addressed Capt. WM. E. HORTON, Q.M. 8-4t

U. S. ENGINEER OFFICE, Wheeling, W. Va., Feb. 25, 1903.—Sealed proposals for building a Power House, except foundation, at Dam. No. 6, Ohio River, near Merrill, Pa., will be received here until 11 a. m. (Eastern time), March 27, 1903, and then publicly opened. Information furnished on application. W. E. CRAIGHILL, Capt., Engrs. 9-4t

PROPOSALS, pages 127, 128, XXX.

SITUATIONS OPEN.

See "Situations Wanted" for rates.

A COMPANY PROMINENT in industrial engineering requires the services of an electrician, theoretical and practical; an engineer with some experience in business matters and as salesman preferred; engineering ability absolutely essential. Address "R. 10," Engineering News, New York. 10-1t

WANTED.—By April 1st, a steam shovel crew for work in Philadelphia; work will last 12 months. Address, giving wages expected, and references, HARMER & QUINN, 308 Fidelity Building, Philadelphia, Pa. 10-3t

EXPERIENCED DRAFTSMAN to assist in calculations and estimates of structural steel for buildings; must be a neat and rapid workman; graduate engineer preferred. Address, giving age, education, experience, references and ideas regarding salary, "O. 10," Engineering News, New York. 10-2t

Italian Laborers

of all kinds for Railroad, Water Works, etc, supplied at short notice. Apply to

N. YUZZOLINO,
Telephone Connection 73 Mulberry St., N. Y. City

MISCELLANEOUS WANTS.

Cards under this head are inserted in uniform style, in solid type, at 2 cents a word; leaded or displayed (to occupy not less than one inch space), $1.50 an inch. Cash MUST accompany the order.

LABORERS of all kinds supplied for work in any part of the United States; railway work a specialty. FRANK ROSS, 44 Mulberry St., New York. 1-15t

ITALIAN LABORERS FURNISHED for all kinds or work; promptness a specialty; first--class references. JAMES GRECO, 106 Bayard St., New York. 6-10t

WANTED.—Rapid cold saw, capacity 24" by 80-lb. beam; punch and shear 20" throat; capacity, punching 1" hole in 1" metal. Address "Z.9," Engineering News, N.Y. 9-2t

WANTED TO PURCHASE, a 20" slide rule, single or duplex; give particulars and description. "OPL.," 321 49th St., Newport News, Va. 10-1t

WANTED.—A traveling derrick, to handle a 1-yd. clam-shell bucket; write giving full description and price. Address L. P. & J. A. SMITH CO., Box 197, Buffalo, N. Y. 10-1t

WANTED.—Two copies Engineering News, Vol. 48, No. 29. Address UNION NEWS CO., 13 Park Place, New York. 10-1t

CIVIL ENGINEER wishes to purchase an interest in an established engineering or contracting business. Address "L. 10," Engineering News, New York. 10-4t

LABOR SUPPLIED for work in any part of the United States and Canada; railroad labor a specialty. INTERNATIONAL LABOR BUREAU, GALASSO & GARGIULO, 74 Baxter St., New York. Telephone, 3966 Franklin. 10-1t

CONTRACTING ENGINEER, with established business in New York, wishes to represent ornamental iron or structural steel shop Address "I. 7," Engineering News, New York. 10-3t

CIVIL ENGINEER forming small contracting company, desires correspondence with several young engineers, also with any person who could command small contracts; capital unnecessary. Address "Z. 10," Engineering News, New York. 10-1t

For other "Want" advts. see page XXV

MISCELLANEOUS WANTS.

See preceding column for rates.

ITALO-AMERICAN TRUST CO.
(Incorporated.)
LABOR DEPARTMENT
First-class Italian Laborers furnished for railroad and city work. Stone Masons and Stone Cutters a Specialty.
N. TOCE, Mgr., 725 Carpenter St., Philadelphia

TEACHERS WANTED
For Mechanical Engineering, Draughting and Manual Training. Salaries, $900 to $3,000, state age, education, experience, work wanted and salary.
The Fisk Teachers Agency
10-2t 4 Ashburton Place, BOSTON, Mass.

WANTED.
Work for New Steam Shovel Outfit
Consisting of 65 ton Bucyrus Shovel, 2 Locomotives, necessary cars, etc. Can be put to work in 48 hours. Address
ATLAS CONSTRUCTION CO.,
10-4t. Box 1138, Milwaukee, Wis.

WANTED.
A Double Cylinder and Drum HOISTER
about 8 x 10 cylinder.
10-tf. P. O. Box 1611, New York.

WANTED.
Steam Roller
Eight or ten ton
Two or three wheels
At once
State full particulars and lowest price.
SAVAGE CONSTRUCTION COMPANY
10-1t. Security Building, CHICAGO.

CONTINUED FROM PAGE XLII.

ADVERTISERS' CLASSIFIED DIRECTORY.

Skylights.
National Skylight & Const'n Co, 120 Liberty st, N Y
Plenty, Josephus, Jersey City, N J
Valle & Young, Baltimore, Md

Sluice Gates.
Coffin Valve Co, Boston, Mass
Coldwell-Wilcox Co, Newburg, N Y

Smoke Stacks (see Stand-Pipes and Tanks).

Speed Governors.
Foster Engineering Co, Newark, N J

Stamp Mills.
Allis-Chalmers Co, Home Ins bldg, Chicago

Stand-Pipes and Tanks.
Brownell & Co, Box 913, Dayton, O
Caldwell, W E, Co, 300 East Main st, Louisville, Ky
Carroll-Porter Boiler & Tank Co, Pittsburg, Pa
Chicago Bridge & Iron Co, Chicago
Columbiana Boiler Co, Columbiana, O
Du Bois Iron Works, Du Bois, Pa
Enterprise Boiler Co, Youngstown, O
Gem City Boiler Co, Dayton, O
Girard Boiler & Mfg Co, Girard, O
Hodge Boiler Co, East Boston, Mass
Keeler, E, Co, Williamsport, Pa
King Bridge Co, Cleveland, O
Means & Fulton Iron Works, Birmingham, Ala
Meehan Boiler & Construction Co, Lowellville, O
North Penn Iron Co, 3d and Sedgley ave, Phila
Petroleum Iron Works Co, Washington, Pa
Riter-Conley Mfg Co, Pittsburg, Pa
Scaife, Wm B, & Sons Co, Pittsburg
Sharon Boiler Works, Sharon, Pa
Smith, Theo, & Sons Co, Jersey City, N J
Snow, T W, 360 Dearborn st, Chicago
Struthers-Wells Co, Warren, Pa
Tallerday Steel Pipe & Tank Co, Waterloo, Ia
Tippett & Wood, Phillipsburg, N J
U S Wind Engine & Pump Co, Batavia, Ill
Walsh, W J, Holyoke, Mass
Warren City Tank & Boiler Works, Warren, O
Wood, R D & Co, Philadelphia, Pa

Steam Shovels.
Austin, Mfg Co, Manhattan bldg, Chicago
Beatty, M, & Sons, Welland, Ont
Bucyrus Co, South Milwaukee, Wis
Hunt, C W, Co, Richmond Terrace, W N Brighton, N Y
Marion Steam Shovel Co, Marion, O
Mead, John A, & Co, 7 Broadway, New York
Osgood Dredge Co, Albany, N Y
Souther, John, & Co, Boston, Mass
Thew Automatic Shovel Co, Lorain, O
Toledo Foundry & Machine Co, Toledo, O
Torbert & Peckham, Monadnock block, Chicago
Vulcan Iron Works Co, Toledo

Steam Specialties.
American District Steam Co, Lockport, N Y
Crane Co, Chicago, Ill
Darling Pump & Mfg Co, Box E, Williamsport, Pa
d'Estè, Julian, Co, 15 Canal st, Boston
Harrison Safety Boiler Wks, 3166 N 17th st, Phila
Lunkenheimer Co, Cincinnati, O
Manning, Maxwell & Moore, 85 Liberty st, New York
Robertson, Jas L, & Sons, 192 Fulton st, New York
Union Steam Spec. Co, 151 Franklin ave, Scranton, Pa
(see also Separators, Oil and Steam.)

Steam Traps.
American Blower Co, Detroit, Mich
Buffalo Forge Co, Buffalo, N Y
Crane Co, Chicago, Ill
d'Estè, Julian, Co, 15 Canal st, Boston
Sturtevant, B F, Co, Boston, Mass

Steel Clips.
Streeter, H A, 35 Indiana st, Chicago

Steel Flanges (Weldless).
Latrobe Steel Co, Girard bldg, Philadelphia

Steel Ties.
Koppel, Arthur, 68 Broad st, New York

Stone.
Bound Brook (N J) Crushed Stone Co
Leopold, J, & Co, 18 Broadway, New York
Thiel, August, Guttenberg, N J
Tomkins, Calvin, 120 Liberty st, New York

Street Cleaning Implements
Escoba Mfg & Supply Co, 147 Cedar st, New York

Street Railway Supplies.
Brill, J G, Co, Philadelphia, Pa

Street Sprinklers and Sweepers
Austin, F C, Mfg Co, Harvey, Ill
Brill, J G, Co, Philadelphia, Pa
Edson Mfg Co, 255 Atlantic ave, Boston
Good Roads Machinery Co, Kennett Square, Pa
Oastler W C, 156 Fifth ave, New York

Structural Steel and Iron Work.
Berlin Construction Co, Berlin, Conn
Brooks, T H, & Co, Cleveland, O
Eichleay, John, Jr, Co, Pittsburg
General Supply & Const'n Co, 8-10 Bridge st, N Y
Kratzer, W N, & Co, 3218 Smallman st, Pittsburg
Link Belt Engineering Co, Nicetown, Phila
McCarty, A F, & Co, 1215 Filbert st, Philadelphia
Means & Fulton Iron Works, Birmingham, Ala
National Skylight & Const'n Co, 120 Liberty st, N Y
N J Foundry & Machine Co, 9 Murray st, N Y
North Penn Iron Co, 3d and Sedgley ave, Phila
Pedrick, E K, Co, 120 Liberty st, New York
Schreiber, L, & Sons Co, Cincinnati, O
Sharon Boiler Works, Sharon, Pa
Snare & Triest, 39 Cortlandt st, New York
Snead & Co Iron Works, ft of Pine st, Jersey City, N J
Streeter, H A, 35 Indiana st, Chicago
Tippett & Wood, Phillipsburg, N J
Walton Iron Co, Cincinnati
(see also Bridges and Buildings.)

Stump Pulling Machine.
Milne Mfg Co, 894 Eighth st, Monmouth, Ill

Submarine Armor (see Diving Apparatus).

Tanks.
Berquist, A S, 515 Bedford ave, Brooklyn, N Y
Hodge Boiler Works, East Boston, Mass
Pacific Tank Co, Los Angeles, Cal.
Riter-Conley Mfg Co, Pittsburg, Pa
Scaife, W B, & Sons, Pittsburg
Steel Storage Elevator & Const'n Co, Buffalo, N Y
Warren City Tank & Boiler Works, Warren, O
(see also Stand Pipes and Tanks.)

Tapes (Steel). See Measuring Tapes.

Tapping Machines (Pipe).
Smith, Anthony P, Mfg Co, Newark, N J

Tents.
Murray & Co, 329 S Canal st, Chicago

Test Borings (see Artesian Wells).

Testing Laboratories (see Laboratories).

Testing Machines.
Falkenau-Sinclair Machine Co, 109 N 22 st, Phila
Riehle Bros Test Mach Co, 1424 N 9th st, Phila

Thermometers (Recording).
Bristol Co, Waterbury, Conn

Tie Plates.
Diamond State Steel Co, Wilmington, Del
Railroad Supply Co, Bedford bldg, Chicago

Ties
Koppel, Arthur, 68 Broad st, New York
Southern Creosoting Co, Slidell, La
Wyckoff Pipe & Creosoting Co, Portsmouth, Va

Time and Cost Keeping.
Industrial Time & Cost Keep. System, Bantam, Conn

Time Detectors.
Am Watchmen's Time Detector Co, 234 B'way, N Y
Imhauser, E, & Co, 306 Broadway, New York

Trading Cloth.
Alpe, A S, Co, 414 North Broadway, St Louis
Faber, Ruhl & Co, 54 Park Place, N Y
Hardtmuth, L & C, 49 Barclay st, New York
(see also Instruments, Engineering, etc.)

Transformers.
General Electric Co, Schenectady, N Y

Trench Machines.
Carson Trench Machine Co, Boston, Mass
Potter Mfg Co, 2010 N W ave Indianapolis, Ind

Tubing (Flexible Metallic).
Moore, Chas C, & Co, 32 First st, San Francisco

Turbines.
Camden Water-Wheel Wks, Camden, New York
Dayton Globe Iron Works Co, 7 Ludlow st, Dayton.
Leffel, Jas, & Co, Springfield, O
Poole, Robert, & Son Co, Baltimore, Md
Risdon-Alcott Turbine Co, Mt Holly, N J
Smith, S Morgan Co, York, Pa
Stilwell-Bierce & Smith-Vaile Co, Dayton, O
Wood, R D, & Co, Philadelphia, Pa

Turnbuckles.
Cleveland City Forge & Iron Co, Cleveland
Merrill Bros, 467 Kent ave, Brooklyn, N Y

Turntables.
American Bridge Co, New York
Boston Bridge Works, 47 Winter st, Boston, Mass
Chicago Bridge & Iron Co, Chicago
Columbia Bridge Co, Pittsburg
Fort Pitt Bridge Works, Pittsburg, Pa
Hunt, C W, Co, Richm'd Terrace, W N Brighton, N Y
King Bridge Co, Cleveland, O
Koppel, Arthur, 68 Broad st, New York
McClintic-Marshall Construction Co, Pottstown, Pa
Mo Valley Bridge & Iron Wks, Leavenworth, Kan
Mount Vernon Bridge Works, Mount Vernon, O
Passaic Rolling Mill Co, Paterson, N J
Philadelphia Bridge Works, Pottstown, Pa
Phoenix Bridge Co, 1321 Arch st, Philadelphia
Virginia Bridge & Iron Co, Roanoke, Va
Wonham-Magor Eng. Wks, 29 Broadway, New York

Valve Boxes.
Cayuta Wheel & Foundry Co, Sayre, Pa
Clow, J B, & Sons, Lake and Franklin sts, Chicago
Drummond, M J, & Co, 192 Broadway, N Y

Valves.
Crane Co, Chicago, Ill
Crosby Steam Gage & Valve Co, Boston
Darling Pump & Mfg Co, Box E, Williamsport, Pa
(see also Hydrants and Valves.)

Valves (Gas)
Campbell, J B, Brass Works, Cascade st, Erie, Pa
Chapman Valve Mfg Co, Indian Orchard, Mass
Crane Co, Chicago, Ill
Ludlow Valve Mfg Co, Troy, N Y
Michigan Brass & Iron Works, Detroit, Mich
Roots, P H & F M, Co, Cornersville, Ind

Valves (Gate).
Cayuta Wheel & Foundry Co, Sayre, Pa
Coffin Valve Co, Boston, Mass
Coldwell-Wilcox Co, Newburg, N Y
Crane Co, Chicago, Ill
Miller, Chas, & Son Co, Utica, N Y
Walworth Mfg Co, Boston, Mass
Wood, R D, & Co, Philadelphia, Pa

Valves (Pressure Regulating).
Ross Valve Co, Troy, N Y
(see also Pressure Regulators.)

Valves (Steam).
Cayuta Wheel & Foundry Co, Sayre, Pa
Chapman Valve Mfg Co, Indian Orchard, Mass
Crane Co, Chicago, Ill
Crosby Steam Gage & Valve Co, Boston
Ludlow Valve Mfg Co, Troy, N Y
Lukenheimer Co, Cincinnati, O

Valves (Stop).
Foster Engineering Co, Newark, N J
Reading Foundry Co, Ltd, Reading, Pa
Thompson, J, & Co, Philadelphia

Varnish and Colors.
Sherwin-Williams Co, Cleveland, O
(see also Paints.)

Vault Lights.
Brooks, T H, Cleveland, Ohio
Tucker & Vinton, 156 Fifth ave, New York

Ventilators.
Buffalo Forge Co, Buffalo, N Y
Merchant & Co, Inc, Philadelphia, Pa

Vises (Parallel).
Merrill Bros, 467 Kent ave, Brooklyn

Wagons and Carts.
Austin, F C, Mfg Co, Harvey, Ill
Climax Road Machine Co, Marathon, N Y
Columbia Wagon Co., Columbia, Pa.
Good Roads Machinery Co, Kennett Square, Pa
Port Huron Engine Co, Port Huron, Mich
U S Sanitary Co, Washington, D C
Watson Wagon Co, Canastota, N Y
Western Wheeled Scraper Co, Aurora, Ill

Water Motors.
Backus Water Motor Co, Newark, N J

Water Softening Plants.
Industrial Water Co, 126 Liberty st, New York
Kennicott Water Softener Co, 3583 Butler st, Chicago
N Y Continental Jewell Filtration Co, 15 Broad st, NY
Patterson, S W, Philadelphia, Pa
Pittsburg Filter Mfg Co, Pittsburg

Water Storage Systems.
Acme Water Stor & Const'n Co, Park Row bldg, N Y

Water Wheel Governors.
(see Governors, Water-Wheel.)

Water Wheels.
Cassel Auto Water Motor Co, Seattle, Wash
Doble, Abner, Co, Fremont & Howard, San Francisco
Pelton Water Wheel Co, 134 Main st, San Francisco
(see also Turbines.)

Water-Works Tools and Supplies.
Flint & Walling Mfg Co, Kendallville, Ind
Smith, A P, Mfg Co. Newark, N J

Well Drilling Machinery.
American Well Works, Aurora, Ill
Cook Well Co, St Louis, Mo
Star Drilling Machine Co, 104 Fulton st, New York
Williams Bros, Ithaca, N Y

Wharf and Pier Builders.
Atlantic, Gulf & Pacific Co, 13-21 Park Row, N Y
McMullen, Arthur, & Co, 13-21 Park Row, New York
O'Rourke, John F, Park Row bldg, N Y
Phoenix Bridge Co, Phoenixville, Pa
San Francisco Bridge Co, 220 Market st, San Francisco

Wheelbarrows.
Cockburn Barrow & Machine Co, Jersey City, N J
Syracuse Chilled Plow Co, Syracuse, N Y
Steubner, G L, Long Island City, N Y
Western Wheeled Scraper Co, Aurora, Ill

Whistles.
Crosby Steam Gage & Valve Co, Boston
Lunkenheimer Co, Cincinnati, O

Windmills.
Flint & Walling Mfg Co, Kendallville, Ind
Temple Pump Co, 15th Place, Chicago
U S Wind Engine & Pump Co, Batavia, Ill

Wire, Wire Rope and Cables.
American Steel & Wire Co, New York & Chicago
Broderick & Bascom Rope Co, St Louis
Leschen, A, & Sons Rope Co, St Louis
Macomber & Whyte Rope Co, 21 S Canal st, Chicago
Roebling's, John A, Sons Co, Trenton, N J
Trenton Iron Co, Trenton, N J
Williamsport Wire Rope Co, Williamsport, Pa

Wire Drawing Machinery.
Turner, Vaughn & Taylor, Cuyahoga Falls, Ohio

Wire Fence (see Fencing).

Wood Preserving (see Creosoting).

Wrenches.
Keystone Drop Forge Wks, 20th & Clearfield sts, Phila

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